Applicant: Cairns-Wicks, Rebecca Organisation: St Helena Research Institute Funding Sought: £10,240.00

# DPR11F\1017

#### Selene Gough

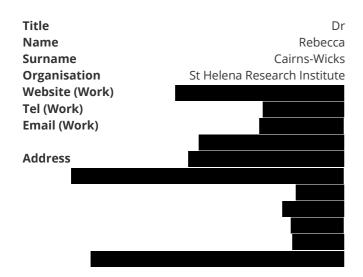
On-island capability to manage and develop the St Helena biological recording system (SHBRS). Selene Gough will apply the knowledge and experience gained to manage the data system and grow the recording base, so that more biological data is available for analysis to inform research, policy making, land management and learning.

### PRIMARY APPLICANT DETAILS

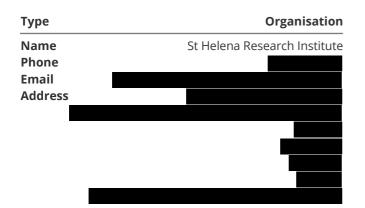
Dr
Rebecca
Cairns-Wicks
St Helena Research Institute

## **Section 1 - Contact Details**

#### **PRIMARY APPLICANT DETAILS**



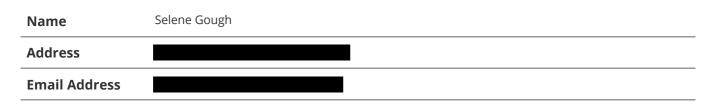
#### **GMS ORGANISATION**



# Section 2 - Title, Dates & Budget Summary

#### Q3. Name and official address of proposed Darwin Plus Fellow

#### Include email details where available.



#### Q4. Summary of proposed Fellowship i.e. Outcome

On-island capability to manage and develop the St Helena biological recording system (SHBRS). Selene Gough will apply the knowledge and experience gained to manage the data system and grow the recording base, so that more biological data is available for analysis to inform research, policy making, land management and learning.

#### Q5a. Please state which UKOT(s) will be involved with the Fellowship?

St Helena, Ascension and Tristan da Cuhna

# Q5b. Have you included a letter of support from the relevant OT Government(s) and/ or OT-based civil society organisation?

⊙ Yes

#### Please provide a combined PDF of all letters of support

选 Letter of support SG

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#### Q6. Project dates

Start date:	End date:	Duration (e.g. 1 year, 2 months):
03 April 2023	31 March 2024	1 year

#### Q7. Budget summary

	2023/24	2024/2025	2025/2026	Total
Darwin funding request (Apr - Mar)	10,240	0.00	0.00	<b>£</b> 10,240.00

#### Please complete the template below which provides the Budget for this application.

Budget form for projects under £100,000 Budget form for projects over £100,000

NB: 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.

#### Please upload your completed Budget Form Excel spreadsheet using the field below.

- A BCF-Budget-under-£100K-MASTER-Apr22-FINAL
- ₿ 17/10/2022
- ③ 22:43:15
- 🗴 xlsx 38.27 KB

# **Section 3 - Principals**

#### Q8. Principals in the Fellowship

Please give the details of the individuals from the applicant and host organisations (and other institutions if relevant) who would be directly involved in supervising/ working with the Darwin Plus Fellow.

Details	Project Leader	Other Expert	Other Expert	Other Expert
Surname	Cairns-Wicks	Roy	No Response	No Response
Forename(s)	Rebecca	David	No Response	No Response
Post held	Coordinator	Head of Biological Recording Centre	No Response	No Response
Organisation	St Helena Research Institute	UK CEH	No Response	No Response
Email			No Response	No Response

#### Do you require more fields?

• No

Please provide a one page CV for each of these named individuals, including the Fellow named at Question 3, uploaded as one PDF.

- 选 Curriculum Vitae SG.edited
- ₿ 17/10/2022
- ③ 22:49:32
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& Rebecca Cairns-Wicks CV

- ₫ 17/10/2022
- ③ 22:49:21
- pdf 255.4 KB

- ▲ DavidRoy 1 page CV for Darwin
- 菌 17/10/2022
- ③ 22:49:10
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## Section 4 - Aims, Activities & Achivements

# Q9. Describe briefly the aims, activities and achievements of the proposed Fellow's employing organisation.

#### Large institutions please note this should describe your unit or department.

The St Helena Research Institute (SHRI) is a collaborative organisation established in 2019 under the Education, Skills and Employment Portfolio Directorate, SHG. We create and promote opportunities for research, innovation, and learning, ensuring that research and new knowledge is accessible and used for the benefit of St Helena. One of our five key strategic goals (2021-2024) is to be a data centre for research. The biological recording system and developing island capacity to collect, manage and analyse biological data and make that accessible for decision making is core to achieving that. We secured EU BEST2.0+ Initiative funding to establish the SHBRS. We are project partners in the Foreign, Commonwealth and Development Office Climate, Security and Stability Funded "Cloud Forest Project" and DPLUS157 "Managing the pathogens threatening St Helena's biodiversity and food security". And secured two doctoral studies: the diseases of cabbage trees and bryophyte microbiome of the cloud forest.

#### Q10. Describe briefly the proposed Fellow's current role within their organisation and what

#### relevance this has to one or more of the main themes of Darwin Plus.

Selene Gough is the Research Data Manager. One of Selene's key roles is working with local and international partners to set up a centralised database as an archive for all species based spatial data sets on St Helena. The database will be accessible via a web-based portal using a bespoke version of the iRecord system (https://irecord.org.uk /) widely used in the UK and supported by the Biological Records Centre at the UKCEH. The system includes a mobile Application that will enable wildlife sightings to be captured in the field from professionals and amateur naturalists, and brought together where data can be checked and made available for national and international use (e.g. through GBIF).

The SHBRS gives St Helena the means to make more informed decisions to improve biodiversity, ecosystem management and the ecosystem services they sustain. Giving access to data to: interpret species status; spatial and temporal distributions to inform planning and decision making, especially for land development and national conservation areas; assessing risk of new introductions; prioritisation of conservation management and interventions (identifying biodiversity hotspots and trends in species distributions) and identifying and monitoring emerging threats (spatial and temporal trends in species abundance e.g. sensitivity to climate change).

# Section 5 - Outcomes & Objectives

#### Q11. Provide a concept note on the Fellowship. This should include:

#### Q11a. A clear outline of the aim and objectives of the Fellowship

The five main aims of the Fellowship are to give Selene the opportunity to:

1. learn key skills in biological recording, data analysis and interpretation, database management and programming.

2. have hands on practical experience working with UKCEH staff, programmes and projects to learn how to work with data from biodiversity monitoring, undertake relevant analysis and produce summaries for others.

3. learn SQL for extracting data from Indicia and R programming to manipulate, analyse and visualise data.

4. get exposure to UKCEH invertebrate and plant monitoring programmes to interpret biological trends.

5. put new skills into practise on St Helena, supported by continued interaction and online communications post visit. St Helena has an incredible wealth of biological data but it hasn't previously been easily accessible for analysis and interpretation to support decision making. The EU BEST2.0+ SHBRS project has sought to change that by creating a central database and accessing that through a web-portal and mobile Application. UKCEH has been a partner in the project and critical to its success. The project is on track to achieve its goals with the web-portal and App expected to be online in early 2023.

Through on-island on-the job training, distance learning and practise, Selene, a young woman, with no previous experience in data science and biological recording has developed her knowledge and skills to achieve the project activities. The web-portal and App will be bespoke versions of UKCEH's iRecord and Selene is working closely with the contractors building them to ensure they meet our needs. Selene will receive training in the management of the database and use of the web-portal in November when David Roy will be visiting the island with web-developers John van Breda and Jim Bacon. The Fellowship will give Selene more in-depth, developmental training to manage the new SHBRS.

#### Q11b. The role of the applicant and/or host organisation, and others where relevant

Applicant: As Coordinator of SHRI and line manager it is my role to give Selene the supervisory support, mentorship and guidance to succeed in her role as Data Manager and deliver on SHRI strategy. Whilst Selene is in the UK, we will keep in weekly contact to check on how she is doing, her well-being, to share news and advise as needed. When she returns, I will guide and support Selene to apply her new knowledge and experience to manage the SHBRS, raise the profile and grow biological recording and work to develop the system.

Host: UKCEH will host Selene for a three-month research visit in 2023. This will provide Selene with excellent training opportunities to work with 5-6 highly experienced BRC staff in managing and analysing biodiversity data for research, conservation and policy evaluation. A training and mentoring programme will be developed with SHRI for Selene's visit to UKCEH and will focus on technologies being used for the SHBRS. David Roy will host the visit, with regular meetings (at least weekly) with Selene to ensure her well-being and to maximise the opportunities of her visit. Selene will also interact regularly with UKCEH staff at other times, through online meetings and emails discussions. Selene will also have opportunities to join project discussions at UKCEH, involving external partners such as JNCC, governmental conservation agencies and university researchers.

#### Q11c. Where appropriate, how the Fellowship will contribute towards one or more of the four of the four themes of

#### Darwin Plus in the OTs i.e. what the expected outcome of the Fellowships will be.

Equipped with more knowledge and experience, Selene will be better enabled to manage the SHBRS. This will contribute directly to enhancing local capacity to maintain and develop species based biological recording on St Helena: a centralised database for all terrestrial species based records, accessible online for professionals and amateurs to upload new individual records or large data sets, download data and for data to be analysed, interpreted and visualised. Departmental and organisational data sets from the partners involved in the BEST2.0+ SHBRS project, the Environment, Natural Resources and Planning Portfolio Directorate (ENRP) and St Helena National Trust (SHNT), including regular monitoring and recording activity for example conducted for biological pest control, biosecurity and conservation, will be brought into the system. We will also use the new platform to increase biological recording activity amongst interested persons, through curricula based educational activities for school pupils and educational outreach encouraging amateur naturalists to engage in citizen science.

Selene will be making a very positive contribution to making species based biological records accessible and available for analysis and interpretation giving Government and non-Government organisations the means to make better informed decisions to improve biodiversity conservation, ecosystem management and the ecosystem services they sustain. It will also give scientists and Academic Institutions overseas access to data that wasn't previously available, opening up opportunities for research that will benefit St Helena and add to global knowledge.

Enabling access to data to: interpret species status; spatial and temporal distributions to inform planning and decision making, especially for land development and national conservation areas; assessing risk of new introductions; prioritisation of conservation management and interventions (identifying biodiversity hotspots and trends in species distributions) and identifying and monitoring emerging threats (spatial and temporal trends in species abundance e.g. INNS or endemic species sensitive to climate change).

## Section 6 - Legacy & Collaboration

#### Q12. Legacy

# Provide information on how the Fellow will utilise, promote and disseminate the benefits of the Fellowship. Will a strategy be developed during the Fellowship to ensure this is achieved?

Selene will utilise her knowledge gained during her research visit to UKCEH and continued interaction with UKCEH, to manage the system as set up at the end of the BEST2.0+ SHBRS project and develop it to support the biological recording programmes and needs of local partners (e.g. ENRP and SHNT). Through for example developing functionality; adding new recording forms or setting up projects.

She will share her knowledge (e.g. gained during her research visit to UKCEH) with colleagues on St Helena, providing training in tools and approaches for managing and analysis of biological records to support conservation, research and policy evaluation. Selene will also extend her network of contacts, particularly at UKCEH but also other stakeholders she'll meet during her time in the UK.

A strategy will be developed with UKCEH and SHRI during her time in the UK to ensure that this is achieved.

#### Q13. Priorities

# How will the Fellowship assist the OT's environmental priorities? Please refer to international or national environmental conventions, treaties, agreements, strategies and/or action plans relevant to the OT as appropriate.

St Helena's 10 Year Plan (SHG, 2016) National Goal, one of six 'Altogether Greener" which includes a focus on the preservation of land and wildlife. 10-year commitments include: protecting endemic flora and the agricultural sector by tackling invasive species. This project will increase the amount of biological records for native and invasive non-native species, spatial and temporal distributions can be mapped over time to assess risk of new introductions; identifying biodiversity hotspots and trends in species distributions and identify and monitoring emerging threats (spatial and temporal trends in species abundance e.g. INNS or endemic species sensitive to climate change.

The Sustainable Economic Development Plan (2018-2028) SHGs plan for raising the standard of living and improving quality of life through setting out opportunities for growth in key sectors and which identifies the potential for Academia, Research and Conferences as one of the key sectors. The SHBRS will be a primary driver for Research on St Helena and being able to maintain and develop it will enable researchers to study biological data here and overseas. Commitments under the CBD and Aichi Targets (2011-2020), specifically Strategic Goal B Target 9 and Strategic Goal E Target 19 and SDG 15 Life on Land.

#### Q14. Collaboration

# What collaboration has there been with the proposed Fellow to date in developing the proposal, and what collaboration is planned for the duration of the Fellowship? Where relevant, describe any consultation or collaboration by the proposed Fellow within their own territory.

This proposal has been co-created between SHRI and UKCEH, building on ongoing collaborations through the EU BEST 2.0+ Establishing a St Helena Biological Recording System (SHBRS) Ref SA-2020-91 and other funded project work funding (e.g. UKCEH-led prioritisation of early-phase establishment INNS for control and eradication in St Helena). Selene has been engaged in the process of developing the application from inception having identified training needs and a desire to pursue her career in biological recording and data science with her line manager through staff appraisals. She has contributed to compiling the application and the decisions on timing, duration and training have been made with her. Collaboration will continue through the implementation of the Fellowship through agreeing a training and mentoring

#### Q15. Where will the Fellow be based?

#### Please be specific with organisational details and dates (where more than one location).

programme for her time with UKCEH and continued interaction post visit.

Selene will based at the UKCEH in Wallingford, UK.

UKCEH will host Selene for a three-month research visit, from 6 June 2023 to 31 August 2023.

She will work with 5-6 highly experienced BRC staff in managing and analysing biodiversity data for research, conservation and policy evaluation for example with the zoology (including pollinator monitoring) and botanical teams. A training and mentoring programme will be developed with SHRI for Selene's visit to UKCEH and will focus on technologies being used for the SHBRS. David Roy will host the visit,

Selene will also interact regularly with UKCEH staff at other times, through online meetings and emails discussions. Selene will also have opportunities to join project discussions at UKCEH, involving external partners such as JNCC, governmental conservation agencies and university researchers.

## Section 7 - Programme of Work

# Q16. Provide a programme of work, including key milestones, through the duration of the Fellowship.

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

Implementation Timetable Template

For each activity (add/remove rows as appropriate) indicate the number of quarters it will last, and fill/shade only the quarters in which an activity will be carried out.

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## **Section 8 - Certification**

#### Certification

#### On behalf of the

Company

#### of

St Helena Government, St Helena Research Institute, Education, Skills & Employment Portfolio

#### I apply for a grant of

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 enclose one page CVs for project principals, cover letter, budget, implementation timetable, and letters of support as requested in the Guidance Notes.

Checked

Name	Rebecca Cairns-Wicks
Position in Organisation	Coordinator, St Helena Research Institute
Signed	
Dated	17 October 2022

## **Section 9 - Submission Checklist**

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
l have provided actual start and end dates for my project.	Checked
l have provided a budget based on UK government financial years i.e. 1 April – 31 March and in GBP.	Checked
The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have checked the Darwin Plus website immediately prior to submission to ensure there are no late updates.	Checked

I have provided the relevant letters of support, cover letter, implementation timetable, Checked and CVs with this application.

I have read and understood the Privacy Notice on the Darwin Plus website. 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 the application form, including personal data, will be used by Defra as set out in the Privacy Notice, available from the <u>Forms and</u> <u>Guidance Portal</u>.

This **Privacy Notice** must be provided to all individuals whose personal data is supplied in the application form. Some information may be used when publicising Darwin Plus including project details (usually title, lead partner, project leader, location, and total grant value).

Project Title:

#### Guidance – please delete before submitting

Provide a **Project Implementation Timetable** that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your project. Quarters are based on UK FYs (**1 April – 31 March** - Q1 therefore starts April 2023).

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 shade only the quarters in which an activity will be carried out. The activity numbers should correspond to the activities in your logical framework (logframe). The workplan can span multiple pages if necessary.

This template covers multiple Biodiversity Challenge Funds schemes, so ensure you check the eligible dates/project length for the scheme you are applying to and feel free to delete later years if not applicable for your project.

	0.000	No. of	Y	ear 1	(23/2	4)	Y	ear 2	(24/2	5)	Y	'ear 3	(25/2	6)	Y	ear 4	(26/2	7)	Year 5 (27/28)			
	Activity	months	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1	learn key skills in biological recording, data analysis and interpretation, database management and programming	3																				
1.1	Book flights & accommodation																					
1.2	Hands on practical experience working with BRC staff in managing and analysis biodiversity data for research and programming																					
1.3	learn how to work with data from biodiversity monitoring, undertake relevant analysis and produce summaries for others.																					
1.4	Learn about analysis biodiversity data for research, conservation and policy evaluation																					

	No. o			. of Year 1 (23/24)					(24/2	5)	Y	'ear 3	(25/2	6)	Y	ear 4	(26/2	7)	Year 5 (27/28)			
	Activity	months	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.5	get exposure to UKCEH invertebrate and plant monitoring programmes to interpret biological trends																					
1.6	Regular meetings with David Roy (UKCEH) and Rebecca Cairns- Wicks (SHRI) for the duration of research visit																					
Output 2	learn SQL for extracting data from Indicia and R programming to manipulate, analyse and visualise data.																					
2.1	One to one hands on training with BRC staff																					
Output 3	put new skills into practise on St Helena, supported by continued interaction and online communications post visit																					
3.1	Implement strategy developed with UKCEH to deliver training to local stakeholders in tools and approaches for managing and analysis of biological records																					
3.2	Online communication and interaction with UKCEH remotely to support development of SHBRS																					
3.3																						