

# DPLR1\1053

## Mapping South Georgia's Plant Biodiversity

In 2022 the Government of South Georgia & South Sandwich Islands (GSGSSI) declared the entire landmass of South Georgia as a Terrestrial Protected Area (TPA). Accurate, up-to date, island wide information on South Georgia's flora is required to identify areas of with high floristic conservation value and where this may be threatened by non-native species. This information will be used to inform the development of spatially refined management plans to help safeguard South Georgia's biodiversity.

Project objectives are to:

- 1) Develop an application to increase local capacity to survey for native and non-native plants.
- 2) Use this application to conduct surveys of plant biodiversity with a focus on sites which are currently data deficient.

### Current situation

- Work to map and manage non-native plant species has focused on areas surrounding the former whaling stations and areas which currently have high visitor traffic (DPLUS015). However, information for less visited sites, especially along the south coast information is not available.
- Hand drawn maps of habitat maps were produced for 12 sites, primarily along the north coast as part of the South Georgia Environmental Baseline project in 2002. In 2018, at four sites with high visitor traffic on the north coast, fine scale habitat maps were produced using satellite imagery and drone footage (DPLUS065). However, neither the hand drawn or satellite/drone derived maps capture species level information or data on distribution of smaller, inconspicuous species.
- Without accurate information on plant distribution across the whole island, it is not possible to make evidence-based decisions on the conservation status of individual sites and implement appropriate management plans.

### Success

To address this, the project will:

- Develop and test a user-friendly application (app) with embedded plant identification information which allows GPS positions of plants to be captured along with accompanying metadata.
- The app will be built in open-source software (B4X) and compiled into an Android application file (APK) which can be copied to Android devices and installed or updated offline. As the app is contained within a single apk file there is no requirement for any additional hardware, software or internet hosting costs.
- Data will be recorded using Core Standards for Occurrence Datasets <https://www.gbif.org/data-quality-requirements-occurrences> enabling results to be published on the Global Biodiversity Information Facility and provide a legacy resource for research.
- The app will be developed in time for staff to make use of berths on an archipelago wide survey of albatross species scheduled for January 2024. This survey, fully underwritten by GSGSSI, provides an unprecedented opportunity to gather data on plant distribution at otherwise inaccessible and under surveyed sites, including on the south coast, and will upskill core GSGSSI staff.
- Project data and methodologies will be submitted to the GSGSSI TPA Advisory Group and used to inform the development of site-specific management plans.

- This project will directly contribute to the development of improved TPA management framework and underline GSGSSIs commitment to data-led environmental decision making in its policy and processes.
- Once developed, a legacy of the project will be to make the app available to all field parties working on South Georgia so plant distribution data can continue to be collected and management can plans refined as appropriate.

## CONTACT DETAILS

---

**Name** Jennifer

**Surname** Black

**Tel (Work)** [REDACTED]

**Email (Work)** [REDACTED]

**Address** [REDACTED]

[REDACTED]

# DPLR1\1053

Mapping South Georgia's Plant Biodiversity

## Section 1 - Project Title & Contact Details

---

### Q1. Project Title

Mapping South Georgia's Plant Biodiversity

### Q2. Please select whether you are applying as an organisation or as an individual (Guidance section 3 and Guidance Glossary)

Organisation

#### CONTACT DETAILS

---

<b>Name</b>	Jennifer
<b>Surname</b>	Black
<b>Tel (Work)</b>	[REDACTED]
<b>Email (Work)</b>	[REDACTED]
<b>Address</b>	[REDACTED]

#### GMS ORGANISATION

---

Type	Organisation
<b>Name</b>	Government of South Georgia & the South Sandwich Islands
<b>Phone (Work)</b>	[REDACTED]
<b>Email (Work)</b>	[REDACTED]
<b>Address</b>	[REDACTED]

## Section 2 - Overseas Territory(ies)

---

### Q3. Overseas Territory (Guidance section 1.3):

Which UK Overseas Territory(ies) will your project be working in? Please note that in case of a non-permanent resident population you need to demonstrate a clear, meaningful, long-term link to the territory.

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*

In addition to the UKOT(s) you have indicated, will your project directly benefit any other UK OT(s) or country(ies)?

No

## Section 3 - Project Partners

---

### Q4. Project partners (Guidance section 3.2)

In this section, please give details of all the partners involved (including the Lead Partner) and provide a summary of their roles.

<b>Project Leader name (Guidance section 3.1):</b>	Jennifer Black, Government of South Georgia & the South Sandwich Islands
<b>Lead Partner name (if applying as an organisation; Guidance section 3.1):</b>	GSGSSI
<b>Lead Partner Website (if applicable):</b>	<i>No Response</i>
<b>Is the Lead Partner based in a UKOT where the project is working (Guidance section 3.1)?</b>	<input checked="" type="radio"/> No
<b>Please explain why this project is led from outside the UKOT:</b>	South Georgia has no resident population. The main GSGSSI office is located in the Falkland Islands. All staff involved in the project will be present in the Territory for the field work component of the project and have a demonstrable long-term association with South Georgia for 10+ years.
<b>List other partners involved and where are they based (Guidance section 3.2):</b>	N/A





Summary of roles and responsibilities of each partner in the project:

Jennifer Black – Project leader/representative of Lead Partner. Jennifer is the GSGSSI Environment Manager and will provide oversight of project delivery, financial management, reporting, and will participate in field work. As lead on Terrestrial Protected Area development in the OT of SGSSI, Jennifer will ensure that results from the project contribute directly to Government policy.

I confirm that all listed partners are aware of this application and have indicated support:

Checked

Attach a Cover Letter for your application (Guidance section 4.2).

-  [20230207 GSGSSI Darwin Plus Local Plant Management Cover Letter](#)
-  10/02/2023
-  17:27:18
-  pdf 169.49 KB

## Section 4 - Project Summary & Description

### Q5. Project Summary (Guidance section 3.8)

Please provide a brief summary of your project. This may be used in communication activities and/or published online, if your application is successful.

This project will develop an application to accurately map South Georgia's plant biodiversity. Staff will be upskilled and priority sites will be surveyed. Data will be made available on an open-source platform and will be used by the Government to inform the development of the newly designated Terrestrial Protected Area framework and contribute to the non-native plant management strategy.

### Q6. Description (Guidance section 2.1)

Please provide a description of your project, including:

- the overall objective
- the current situation and the problem the project is trying to address
- what success will look like and how you will measure it

Please be as specific as possible when describing the project, using quantified data and evidence where available. You may wish to consider: what are the specific threats to the environment that the project will attempt to address, and what should we know about these threats? What does your successful project look like? And how will you demonstrate whether and how your project has been successful?

In 2022 the Government of South Georgia & South Sandwich Islands (GSGSSI) declared the entire landmass of South Georgia as a Terrestrial Protected Area (TPA). Accurate, up-to date, island wide

information on South Georgia's flora is required to identify areas of with high floristic conservation value and where this may be threatened by non-native species. This information will be used to inform the development of spatially refined management plans to help safeguard South Georgia's biodiversity.

Project objectives are to:

- 1) Develop an application to increase local capacity to survey for native and non-native plants.
- 2) Use this application to conduct surveys of plant biodiversity with a focus on sites which are currently data deficient.

Current situation

- Work to map and manage non-native plant species has focused on areas surrounding the former whaling stations and areas which currently have high visitor traffic (DPLUS015). However, information for less visited sites, especially along the south coast information is not available.
- Hand drawn maps of habitat maps were produced for 12 sites, primarily along the north coast as part of the South Georgia Environmental Baseline project in 2002. In 2018, at four sites with high visitor traffic on the north coast, fine scale habitat maps were produced using satellite imagery and drone footage (DPLUS065). However, neither the hand drawn or satellite/drone derived maps capture species level information or data on distribution of smaller, inconspicuous species.
- Without accurate information on plant distribution across the whole island, it is not possible to make evidence-based decisions on the conservation status of individual sites and implement appropriate management plans.

Success


To address this, the project will:


- Develop and test a user-friendly application (app) with embedded plant identification information which allows GPS positions of plants to be captured along with accompanying metadata.
- The app will be built in open-source software (B4X) and compiled into an Android application file (APK) which can be copied to Android devices and installed or updated offline. As the app is contained within a single apk file there is no requirement for any additional hardware, software or internet hosting costs.
- Data will be recorded using Core Standards for Occurrence Datasets <https://www.gbif.org/data-quality-requirements-occurrences> enabling results to be published on the Global Biodiversity Information Facility and provide a legacy resource for research.
- The app will be developed in time for staff to make use of berths on an archipelago wide survey of albatross species scheduled for January 2024. This survey, fully underwritten by GSGSSI, provides an unprecedented opportunity to gather data on plant distribution at otherwise inaccessible and under surveyed sites, including on the south coast, and will upskill core GSGSSI staff.
- Project data and methodologies will be submitted to the GSGSSI TPA Advisory Group and used to inform the development of site-specific management plans.
- This project will directly contribute to the development of improved TPA management framework and underline GSGSSIs commitment to data-led environmental decision making in its policy and processes.
- Once developed, a legacy of the project will be to make the app available to all field parties working on South Georgia so plant distribution data can continue to be collected and management can plans refined as appropriate.


**(Optional) Please upload any additional and supporting materials or files (such as maps of project sites, etc) below. Maximum of 5 pages:**

---

 [SupportLetterKelvin](#)

 10/02/2023

 18:12:48

 pdf 72.95 KB

## Section 5 - Project Outcome(s)

---

### Q7. Project Outcome(s) (Guidance section 1.2)

**Successful Darwin Plus Local projects must demonstrate measurable outcomes in at least one of the themes of Darwin Plus, either by the end of the project or soon after through a credible plan.**

**Please tick which theme(s) of Darwin Plus your project underpins:**

Checked	<b>Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;</b>
Checked	<b>Climate change: responding to, mitigating and adapting to climate change and its effects on the natural environment and local communities;</b>
Unchecked	<b>Environmental quality: improving the condition and protection of the natural environment</b>
Checked	<b>Capability and capacity building: enhancing the capacity within OTs, including through community engagement and awareness, to support the environment in the short- and long-term.</b>

**Please justify your selection.**

Biodiversity - Improved understanding of the distribution of plant species on South Georgia. Outputs will directly contribute to ensuring terrestrial habitats are appropriately protected and managed and conserve biodiversity.

Climate change - Climate change has the potential to impact species distribution. Developing local capability to survey plants provides enhanced ability to monitor changes in vegetation.

Capability and capacity building –Development local knowledge of otherwise difficult to access sites facilitating good environmental decision making. User friendly app will enable ongoing surveys and open data access will benefit the global research community.

## Section 6 - Project Timeline

---





### Q8. Project timeline (Guidance section 2.2)

**Please provide anticipated dates for the start and end of your planned project here. Please use the Darwin Plus Local Project Implementation Timetable Template (which can be downloaded below) to provide a list of the individual activities you have planned for this project, a brief description of what each activity entails, and the months in which the activities will be carried out. If the project involves only one activity (e.g. a purchase), please still provide project start and end dates (noting estimated times for procurement). Please note that your project will need to be completed by 31 March 2024.**



Start date:	End date:	Duration (e.g. 3 months):
01 November 2023	31 March 2024	5 months

Please upload the completed Darwin Plus Local Project Implementation Timetable template with your proposed project activities below.

-  [R1-DPlus-Local-Implementation-Timetable-Template-FINAL](#)
-  10/02/2023
-  17:36:58
-  docx 39.17 KB

## Section 7 - Costs

### Q9. Costs (Guidance section 2.2 and please read the Finance Guidance)

Please provide a breakdown of costs to be funded through Darwin Plus Local (in GBP).

Are you seeking any matched funding for this project? (Please note that this is optional and there is no requirement to seek matched funding for Darwin Plus Local projects).

Yes

#### How much matched funding are you seeking and where from?

In order to access remote south coast sites, project staff will take up available berths on a yacht charter arranged by GSGSSI to undertake a survey of wandering albatross. The charter costs for the yacht are £[REDACTED] for 6 weeks. Matched funding will be provided by:

Antarctic Research Trust - £1[REDACTED] (funding secured)  
 South Georgia Heritage Trust - [REDACTED] (funding sought)  
 GSGSSI – underwriting any unsecured funds

Budget line	Explanation	Cost in GBP
<b>Staff costs:</b>	Costs for development of application and for K Floyd and J Black to undertake surveys of priority sites and post survey write up	[REDACTED]
<b>Overhead costs:</b>	Nil	[REDACTED]
<b>Travel &amp; subsistence costs:</b>	Travel to the Falkland Islands to join vessel bound for South Georgia	[REDACTED]
<b>Operating costs:</b>	Nil	[REDACTED]

<b>Capital equipment:</b>	Hand held android device for surveys, satellite coms, PPE for field work	██████████
<b>Consultancy costs:</b>	Nil	██████
<b>Total:</b>		██████████

**This section provides more information on the budget to help evaluators understand how you will use the funds you are requesting. You do not need to list all costs, but please list and detail costs of more than £1,000 per item below, under the appropriate budget line.**

**Details of staff costs over £1,000 (if relevant)**

App development:

14 days @ ██████████ for K Floyd

Survey:

49 days @ ██████████ K Floyd

1.5 month @ ██████████ J Black

Write up/data upload/project management

7 days @ ██████████ K Floyd

0.5 month @ ██████████ J Black

**Details of overhead costs over £1,000 (if relevant):**

*No Response*

**Details of travel and subsistence costs over £1,000 (if relevant):**

1 x return economy flight UK to Falkland Islands plus T&S – J Black c ██████████

1 x return economy flight NZ to Falkland Islands plus T&S – K Floyd c ██████████

**Details of operating costs over £1,000 (if relevant):**

*No Response*

**Details of capital equipment costs over £1,000 (if relevant):**

Purchase 2 x handheld android devices (estimated ██████████) per unit which will be used in conjunction with new app to gather field data.

PPE required for field work (boots, foul weather gear etc) - ██████████ per person.

Hire (or purchase if more economical) of iridium device for field coms - ██████████.

**Details of consultancy costs over £1,000 (if relevant):**

*No Response*

**Details of other costs over £1,000 (if relevant)**

*No Response*

**If your project budget was prepared in another currency and converted to GBP, please provide the**

exchange rate, its source, and the date it was accessed:

Other currency:	Exchange rate:	Source of this exchange rate:	Date exchange rate accessed:
No Response	No Response	No Response	No Response

**Darwin Plus Local has been created to build capacity and contribute to local economies in-territory.**

What % of the total will be spent in the OTs?

**If less than 80% of the total project spend is to be spent within the OT(s), please explain why.**

South Georgia is an uninhabited territory without a resident population. Money that staff members earn whilst they are within South Georgia is spent elsewhere.

Notwithstanding, the staff members engaged in the project have a long association with the Territory for 10 + years. Skills gained on this project will be retained within the Territory.

Items of equipment purchased from overseas will also remain available for use within the Territory after the project end date.

## Section 8 - Local and National Priorities

### Q10. Local and national priorities

**Please explain how this project aligns with local and national priorities? You may wish to consider the project in the context of national environmental laws, objectives, strategies, territory specific agreements, action plans or policies.**

Protect, Sustain, Inspire (PSI) - stewardship framework that identifies priority areas for the sustainable management of SGSSI. Guiding values include Environmental Protection, with a commitment to "monitor for change", and Evidence-based decision making, with a commitment to "use robust evidence to inform decisions". As part of the PSI framework GSGSSI has committed to "protect the territory from new invasive species and target existing ones to ensure they don't spread" and the need to "integrate new technologies and innovation for data collection with expertise and interpretation as drivers for evidence based decision making" is highlighted.

SGSSI Draft Terrestrial Protected Areas Management Plan - highlights the need for "Surveys of terrestrial communities in less frequently visited areas, including the south coast of South Georgia, will be undertaken to inform future management"

South Georgia Non-Native Plant Management Strategy recognises "Opportunities to survey outlying areas for the presence of non-native plants will be identified and taken" and the information collected will then be used to support prioritisation and ongoing control.


**Will the project take place on Government owned land or water?**


Yes


Please attach evidence that you have Government support i.e. Letter of Support.

 [20230207 GSGSSI Darwin Plus Local Plant Ma](#)

[nagement Cover Letter](#)

 10/02/2023

 17:53:19

 pdf 169.49 KB

## Section 9 - Project Risks

---

### Q11. Project Risks

Please demonstrate your consideration of any risks involved in this project and how you intend to manage them. Depending on your project, you may wish to consider:

- Biosecurity risks – particularly for projects involving external equipment.
- Safeguarding risks – particularly for projects involving vulnerable groups such as children, older people or people with disabilities.

Risk	Mitigation
Logistics - Access to the south coast sites is in parallel with a survey for wandering albatross. If the survey were not to go ahead, site access would be more limited and would have to be re-arranged using different logistics and would likely be at a narrower range of sites.	- Charter agreement for the survey has already been signed and budget allocated by GSGSSI - Appropriate contingency time built into charter period to allow for weather delays (6 week charter, which includes up to 2 weeks weather contingency) - Alternate site access via Pharos SG in event of charter cancellation
Staffing – Key staff with relevant expertise unavailable	- J Black on contract to GSGSSI - Letter of intent from K Floyd - currently contracted seasonally
Biosecurity – moving between sites could transfer non-native species and disease	- The GSGSSI biosecurity handbook will be followed at all times - All clothing and equipment will be cleaned between sites

Do you require more fields?

No

## Section 10 - Terms & Conditions

---

### Q12. Terms and conditions (Guidance section 3.10)

By applying for Darwin Plus Local you are adhering in full to the grant Terms and Conditions in full

(available at: <https://dplus.darwininitiative.org.uk/apply> and as referenced in the Guidance at section 3.10). For information, the Terms and Conditions include requirements for all applicants to (amongst other requirements as per the full Terms and Conditions):

- Uphold a zero tolerance for inaction approach to tackling sexual exploitation, abuse, and harassment.
- Where appropriate, make all reasonable and adequate efforts to address gender inequality and other power imbalances.
- Notify all cases of fraud and theft (whether proven or suspected) relating to the project to the Grant Administrator as soon as they identified.

**Please indicate you have read, and understood, and will adhere to the Terms and Conditions.**

Checked

**If your application is successful:** If your project application is successful, the Fund Administrator (NIRAS) will ask you to provide some financial evidence for due diligence checks before you receive your project grant. (Please see section 3.3 of the Darwin Plus Local Finance Guidance). Please be ready to provide this evidence promptly.

**Financial evidence for organisations:** Year-end financial statements, the latest management accounts or audited accounts (if you have these).

**Financial evidence for individuals:** Proof of identity such as a passport, ID card or driving licence and solvency (such as bank statements) and a police check.

## Section 11 - Certification

---

### Certification

**I certify that, to the best of my knowledge and belief, the statements made in this application are true and the information provided is correct.**

Checked

**I have the authority to submit an application on behalf of my organisation.**

Checked

**Name:**




Laura Sinclair Willis - per pro Jennifer Black (currently on South Georgia unable to access internet)

---

**Position in the organisation: (if applicable)**

Environment Manager

---

Signature (please upload e-signature)       [Signature LSW](#)  
 10/02/2023  
 18:03:14  
 jpg 67.88 KB

---

Date: 10 February 2023

---

## Section 12 - Submission Checklist

---

### Checklist for submission

	Check
<b>I have read the Guidance documents, including the “Darwin Plus Local Guidance” and the “Darwin Plus Local Finance Guidance”.</b>	Checked
<b>If my proposed project takes place on public lands or water, I have uploaded a Letter of Support from Government.</b>	Checked
<b>I have uploaded a cover letter that details the information requested in the guidance (Guidance section 4.2 has information on what this cover letter should include).</b>	Checked
<b>I have read, and can meet, the current Terms and Conditions for this fund.</b>	Checked
<b>I have provided actual start and end dates for the project.</b>	Checked
<b>I have provided my summary budget based on UK government financial years i.e. 1 April – 31 March and in GBP in the application form.</b>	Checked
<b>I have uploaded my project implementation timetable using the specific template provided.</b>	Checked
<b>(If copying and pasting into Flexi-Grant) I have checked that all my responses have been successfully copied into the online application form.</b>	Checked
<b>The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).</b>	Checked
<b>I have checked the Darwin Plus website immediately prior to submission to ensure there are no late updates.</b>	Checked
<b>I have read and understood the Privacy Notice on the Darwin Plus website.</b>	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 Darwin Plus. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share project news. 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 [Forms and Guidance Portal](#).

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:

### Darwin Plus Local

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. Projects are based on UK Financial Years (**1 April – 31 March** - 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 months in which an activity will be carried out. The workplan can span multiple pages if necessary.

Activity #	Description (max 25 words)	No. of months	UK Financial Year 2023/24													
			Calendar Year 2023									Calendar Year 2024				
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
1	Development of app (2 weeks over 2 months)	2										Nov	Dec			
2	Field work / training / data capture	2												Jan	Feb	
3	Write up / data submission	1														Mar