Applicant: **Jones, Kirsty**
Organisation: **St Helena Government**
Funding Sought: **£13,250.00**

DPLR4\1058

Understanding life history of St Helena’s endemic reef fish

This project aims to understand the lifecycle of St Helena’s endemic reef fish species, who hold different functional roles. They contribute to critical ecological processes and are important to the health of the ecosystem plus the cultural identity of the island. In-situ data must be gathered on biology and ecology of target species in order to assess susceptibility and tolerances to global warming, and the potential effects of global warming to the wider ecosystem.

DPLR4\1058

Understanding life history of St Helena’s endemic reef fish

Section 1 - Project Title & Contact Details

Q1. Project Title

Understanding life history of St Helena’s endemic reef fish

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

⦿ Organisation

CONTACT DETAILS

Title	Miss
Name	Kirsty
Surname	Jones
Tel (Work)	+
Email (Work)	
Address	

GMS ORGANISATION

Type	**Organisation**
Name	St Helena Government
Phone	
Email	
Address	

Section 2 - Overseas Territory(ies)

Q3. Please state whether the same (or similar) project proposal has previously been submitted to the UK Government for funding, including through Darwin Plus Local, Defra's other Darwin Plus grant schemes or other UK Government funding mechanisms. Failure to do so may result in the application being ineligible.

⦿ No

Q4. 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.

☑ St Helena, Ascension and Tristan da Cunha*

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

St Helena

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

⦿ Yes

Please list these here and describe how they will benefit:

All target species subject to research, except Stegastes sanctaehelenae, are shared endemics with Ascension Island. Any data collected for these species will be shared with Ascension to assist with their understanding and research.

Section 3 - Project Partners

Q5. Project partners (Guidance section 3.2)

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

Project Leader name (Guidance section 3.1):	Kirsty Jones
Lead Organisation name (if applying as an organisation; Guidance section 3.1):	St Helena Government
Lead Organisation Website (if applicable):	https://www.sainthelena.gov.sh/portfolios/environment-natural-resources-planning/environmental-management/marine-division/

Is the Lead Organisation based in a UKOT where the project is working (Guidance section 3.1)?	⦿ Yes

List other partners involved and where are they based:	Carlos Ferreira and Sergio Floeter are based at the Universidade Federal Fluminense (www.lecaruff.com.br) and Universidade Federal de Santa Catarina (https://lbmm.ufsc.br), respectively. They are representing two initiatives that have been working on Atlantic oceanic islands, the PELD-ILOC (https://peldiloc.sites.ufsc.br/) and the Mission Atlantic (https://missionatlantic.eu/).
Summary of roles and responsibilities of each partner in the project:	Both Carlos and Sergio will travel to St Helena for a two week stay to build capacity and assist with the creation of the sampling programme. This will entail a two week training programme covering in-water sample collection, lab dissections, preservation methods and analysis techniques. As well as providing advice/knowledge when needed throughout the projects life span. They have 25 years of experience, working on many aspects of the ecology and conservation of reef fishes and reef systems in the Atlantic, having led many scientific expeditions to isolated oceanic islands: Sao Tome and Principe, Cabo Verde, Ascension Island, as well as coordinating the continuous monitoring programme of the four Brazilian oceanic islands (St Paul's Rocks, Rocas Atoll, Fernando de Noronha and Trindade). Sergio and Carlos also led a scientific expedition as part of the Mission Atlantic Project to St Helena. They have played a key role in the development of this application and the rationale/planning for a Darwin Plus Main bid that will be developed, as this project is the precursor to a larger project looking at susceptibility of endemic species to global warming, using a trophic modelling approach. Their expertise of target species is necessary for the success of this project.
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).

Cover Letter For Submission_Understanding life history of St Helena's endemic reef fish species_V3 Final
20/06/2024
15:56:03
pdf 157.11 KB

Section 4 - Project Summary & Description

Q6. 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 aims to understand the lifecycle of St Helena's endemic reef fish species, who hold different functional roles. They contribute to critical ecological processes and are important to the health of the ecosystem plus the cultural identity of the island. In-situ data must be gathered on biology and ecology of target species in order to assess susceptibility and tolerances to global warming, and the potential effects of global warming to the wider ecosystem.

Q7a. Description (Guidance section 2.1 and 6)

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?

Climate change is one of the biggest threats the environment faces during the next century. The South Atlantic Climate Change Report (Hobbs et al., 2021) highlighted that the impacts of climate change in the South Atlantic Overseas Territories are still poorly documented and understood. More species specific research and data collection is therefore required to better understand climate change impacts.

St Helena's Marine Management Plan 2023-2027 which governs St Helena's MPA outlines objectives to ensure the island's rich biodiversity and unique ecosystems are understood, conserved and protected. Objective 1.3 has a specific action (1.3.2) to: Undertake long-term research monitoring and modelling to better understand the potential impacts of climate change on St Helena's marine environment. This project aims to make a start on delivering this objective.

St Helena's MPA is home to 18 endemic fish species, some are shared with Ascension Island and St Peter's and St Paul's Rocks and some shared only with Ascension Island. We have long-term monitoring programmes assessing abundance and habitat extent, but there is currently little to no data on the biology, ecology and life history of these shared endemic species, specifically in St Helena.

Four endemic species; Chaetodon sanctaehelenae, Bodianus insularis, Stegastes sanctaehelenae and Sparisoma strigatum have been selected for an in-depth ecological study as there is currently no data on fecundity, diet, age estimation and spawning of these species. This baseline data is needed to enable assessment of susceptibility and tolerances to global warming, which if negative for the keystone species Chaetodon santaehelenae, could trigger major changes within the trophic chains, wider reef ecosystems and St Helena's food security and economy.

St Helena Government (SHG) operates a fisheries science programme dedicated to gathering the evidence base needed to ensure the sustainability of commercially important species; yellowfin tuna and grouper, supporting economic benefit. But, SHG lack the capacity and access to training when it comes to smaller reef species. PELD-ILOC and Mission Atlantic visited St Helena in 2023 to collect data on connectivity, feeding patterns, diet and abundance assessment of South Atlantic, oceanic island species. This provided St Helena Government an insight into what could be achievable with endemic species when the knowledge base is already formed. Scientists from PELD-ILOC and Mission Atlantic already have in-depth knowledge on the species St Helena want to target in this study and are therefore needed to establish this project.

Carlos and Sergio are specialists in their field and through this project will return to St Helena (for 2 weeks) work with SHG's Marine and Fisheries Conservation section (MFCS) on sampling, preservation and monitoring techniques of these species. They will train four team members (MFCS Core team members) and set up a sampling programme. MFCS team members will continue the sampling programme after the training phase by undertaking monthly sampling through spawning season and thereafter.

The main aim for this project is to up skill local staff and gather sufficient data to enable SHG to apply for a Darwin Plus Main Grant to assess susceptibility of St Helena's endemics to climate change, using a trophic model approach. This project will also be partnered with Sergio and Carlos and will ensure St Helena is prepared for future climate change scenarios and allow integration of appropriate monitoring and management where possible to mitigate the effects of global warming. The success of this Darwin Local Project will be showcased through SHGs capacity to undertake the sampling programme now and in the future, and to be prepared for a Darwin Plus Main bid.

Q7b. Long-term sustainability (Guidance section 2.1 and 6)

Please describe the long-term benefits of the project and the change it will bring about. How will the outcomes of the project be sustained after the funding is finished?

For a small island environment, climate change is a threat that is difficult to mitigate. Threat assessment and understanding is crucial to ensure St Helena is prepared for any changes that may occur to reef habitats and biodiversity as a result of rising water temperatures. This project will gather baseline data to feed into a Darwin Plus Main bid which will aim to understand sea warming impacts on endemic reef fish of St Helena, exploring trophic consequences along the entire local food web using different global warming scenarios on the reef food web. Thus, sustaining momentum, and gaining direct results from trophic modelling to allow St Helena to predict what the future may hold for important endemic species, the future of fisheries and food security for the island. The data collected will be invaluable to our understanding of endemic species and will aid the delivery of Action (1.3.2) of the Marine Management Plan 2023-2027.

(Optional) Please upload any additional and supporting materials or files (such as maps of project sites, etc) below. Maximum of 5 sides of A4, and is combined as a single PDF:

No Response

Section 5 - Project Outcome(s)

Q8. Project Outcome(s) (Guidance section 1.2)

Successful Darwin Plus Local projects must demonstrate measurable outcomes in <u>at least one of the themes of Darwin Plus with a clear focus on biodiversity and the natural environment</u>, either by the end of the project or soon after through a credible plan.

Please note: Any proposals including research or monitoring are required to demonstrate a clear link to tangible outcomes for conservation of biodiversity and the natural environment. Please explain how any new research will be applied to drive environmental outcomes on the ground.

<u>Please confirm that your project has a clear focus on biodiversity and the natural environment.</u>

Checked	**Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;**

Please tick which additional theme(s) of Darwin Plus your project contributes to (if relevant):

Checked	**Climate change: responding to, mitigating and adapting to climate change and its effects on the natural environment and local communities;**
Unchecked	**Environmental quality: improving the condition and protection of the natural environment**
Checked	**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.**

Please justify your selection. Please use quantitative information where possible here.

Four SHG team members will be trained and a methodology will be produced to conduct sampling of data poor endemic species. Endemic species are crucial to ecosystem health and the islands community culture. Being able to assess species tolerance to global warming will allow preparation for what the knock on effect may be to the wider food web and economically important species, as mitigation measures may not be possible. This project aims to respond to climate change and its effects on reef communities as well as build capacity within the OT to ensure resilience moving forward.

Section 6 - Workplan

Q9. Workplan (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 Workplan (available at: https://darwinplus.org.uk/apply/local-applications/**) 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 must start after 1 October 2024 and be completed by 31 March 2025.**

Start date:	End date:	Duration (e.g. 3 months):
01 October 2024	31 March 2025	6

Please upload the completed Darwin Plus Local Project Workplan with your proposed project activities here

Implementation Timetable_Understanding life history of St Helenas endemic reef fish species_Final

20/06/2024

16:22:58

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Section 7 - Costs

Q10. 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?

⦿ No

Budget line	Explanation	Cost in GBP
Staff costs:	Staff costs will be covered by SHG as a form of matched funding.	£0.00
Consultancy costs:	This amount covers Partners Sergio and Carlos for their time in St Helena training local staff and an extra week of ad-hoc support.	£[redacted]
Overhead costs:	This includes, consumables £[redacted] research permit (£[redacted] community engagement (advertising £[redacted]	£[redacted]
Travel & subsistence costs:	This covers Partners Sergio and Carlos's travel to and subsistence in St Helena for two weeks.	£[redacted]
Operating costs:	Costs associated with fieldwork. Vessel hire and fuel for 12 field days, SCUBA gear rental for Sergio and Carlos and dive cylinder rental for partners and SHG staff for four dives during training. Tank rental for sampling programme 2 dives every month for 4 months.	£[redacted]
Capital equipment:	N/A	£0.00
Other Costs	N/A	£0.00
Total:		13,250.00

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)

No Response

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

No Response

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

Project Partners are travelling from Brazil to St Helena. One partner is travelling from Florianopolis to Johannesburg with a layover in Sao Paulo and one partner is travelling from Rio de Janeiro to Johannesburg with a layover in Sao Paulo. These flights are very costly due to the distance of over ~5,000 miles. Both will then fly from Johannesburg to St Helena which again is an expensive return ticket. A travel agent on St Helena will be used for these travel bookings meaning the money is spent on island.

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

To undertake this work, SCUBA equipment and a boat must be hired to cover project partners and 4 SHG staff. It is estimated that 12 boat days are needed for the sampling programme and gear rental is needed for each day, including tanks. The boat days have been calculated contract cost with local vessel operators and fuel amount.

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

No Response

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

This amount covers two partners (Sergio and Carlos) fees for three weeks of consultancy work for the project. This includes; two weeks on island capacity building and establishment of sampling programme and one week of consultancy fees which covers any additional support needed by MFCS in regards to sampling programme and methods used.

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.

No Response

Section 8 - Local and National Priorities

Q11. 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.

This project aligns with:

• Marine Management Plan 2023-27 objective 1.3; action 1.3.2: Undertake long-term research monitoring and modelling to better understand the potential impacts of climate change on St Helena's marine environment.
• SHG's Island's Vision and Strategy 10 Year Plan, Altogether Greener Strategic Objective 25: Continuously enhance efforts to develop, protect, conserve and promote sustainable use of our environment and 27: Mitigate climate change impact, particularly the impact of drought
• Environment, Natural Resources and Planning Portfolio's Priority number 1 - Protect the natural environment by conserving biodiversity, preventing, minimising or mitigating against any negative activity and or impact, to conserve and enhance the Island's natural capital. Priority number 5 – Increase our capacity to safeguard natural habitats and save critically endangered species.
• SHG Climate Change Policy and Climate Action Plan

Will the project take place on Government owned land or water or involve biocontrol, invasive alien species control or eradication?

⦿ No

Section 9 - Project Risks

Q12. Project Risks

Please demonstrate your consideration of any risks involved in this project and how you intend to manage them. Please note the importance of health and safety and environmental risk assessment in the design of your project. If there is any possibility that your project may have negative impacts on the environment or human health, it is important that you provide a comprehensive analysis of potential environmental and human health risks, and the prevention measures you will take to ensure the work does not cause harm.

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
Loss of one or more of the four SHG core staff	Full training notes including videos and SOPs will be produced. This will allow core staff to train project/new staff if need be. Additional resilience is built in by up-skilling 4 staff members, mitigating staff turnover risk (if one leaves three still remain).
No Response	*No Response*
No Response	*No Response*

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: Darwin Plus website **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

Supporting documents list (please have these ready to attach with application)

- **Cover Letter of no more than two A4 pages. (Guidance section: 4.2 has information on what this cover letter should include).**
- **If the project takes place on public land or water or is addressing invasive alien species, a Letter of support from OT Government.**
- **Project Workplan in the template provided for Darwin Plus Local (available at: https://darwinplus.org.uk/apply/local-applications/).**
- **Map and additional information (optional) maximum five additional pages.**

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:	Kirsty Jones
Position in the organisation: (if applicable)	Marine and Fisheries Conservation Officer
Signature (please upload e-signature)	signature 20/06/2024 16:44:25 png 8.17 KB
Date:	20 June 2024

Section 12 - Submission Checklist

Checklist for submission

	Check
I have read the Guidance **documents, including the "Darwin Plus Local Guidance" and the "Darwin Plus Local Finance Guidance".**	Checked
If my proposed project takes place on public lands or water or is addressing alien invasive species, I have uploaded a Letter of Support from Government.	Checked
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).	Checked
I have read, and can meet, the current Terms and Conditions **for this fund (found at:** https://darwinplus.org.uk/apply/local-applications/**) for this fund.**	Checked
I have provided actual start and end dates **for my project that fit this Round.**	Checked
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.**	Checked
I have uploaded my project workplan using the specific template provided (available at: https://darwinplus.org.uk/apply/local-applications/**).**	Checked
I have uploaded all supplementary documents if I have any.	Checked
(If copying and pasting into Flexi-Grant) I have checked that all my responses have been successfully copied into the online application form.	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 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 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: **Understanding life history of St Helena's endemic reef fish species.**

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. Round 4 is for a **maximum of 6 months** with activities starting from 1 October 2024. All activities must be completed by 31 March 2025.

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 2024/25					
			Calendar Year 2024			Calendar Year 2025		
			Oct	Nov	Dec	Jan	Feb	Mar
1	Capacity Building Visit	2 weeks						
2	Sampling Programme (monthly)	5 months						