

DP\100014

Sustainable fishery management for St Helena's lobster populations

**Beard, Annalea | Marine Section, Environment and Natural Resources
Directorate, St Helena Government**

Funding sought
Project start/end

£198,394.00
1 Sep 2018 - 31 Aug 2020

1. Contact Details

Q1. Lead applicant contact details

Please enter the contact details for the lead application. The lead applicant is the same as the Flexi-Grant account holder. Please note that the Flexi-Grant account holder will be the only contact point for the application. Additionally, please add contact details for the Project Leader if this is different from the lead applicant.

Miss Annalea Beard

Primary Applicant

Marine Section, St Helena Government,
Essex House, Jamestown, STHL 1ZZ, Saint
Helena (Work)

Dr Ewen Bell

CEFAS, Pakefield Road, Lowestoft, Suffolk,
NR33 0HT, United Kingdom

Q2. Lead organisation contact details

Please enter the applicant organisation details

Marine Section, Environment and Natural Resources Directorate, St Helena
Government

Marine Section, St Helena Government,
Essex House, Jamestown, STHL 1ZZ, Saint
Helena

Q3. Lead organisation type

Please select one of the below options.

OT Government

Please add any 'Committee Feedback' to the field below:

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Please add any 'Specific Ineligibility' feedback to the field below:

|

Please add any 'Conditions' to the field below:

|

Please add any 'Positive Feedback to the field below:

|

2. Title, Dates & Budget Summary

Q4. Project title

Sustainable fishery management for St Helena's lobster populations

Q5. Project dates

Start date: 01/09/2018	End date: 31/08/2020	Duration (e.g. 2 years, 3 months): two years
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Q6. UKOT(s)

(See Guidance Notes)

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

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 Island

In addition to the UKOTs you have indicated above, will your project directly benefit any other country(ies)? If so, list here.

Q7. Budget summary

Year:	2018/19	2019/20	2020/21	Total request
Amount:	£71,823.00	£78,300.00	£48,271.00	£198,394.00

Q7b. Proposed (confirmed and unconfirmed) co-financing as % of total project cost

20% confirmed

3. Lead Organisation Summary

Q8. Lead organisation summary

Please provide the following information on the lead organisation

What year was your organisation established/ incorporated/ registered?	1834
What is the legal status of your organisation?	<input checked="" type="radio"/> Government
How is your organisation currently funded?	Domestic revenue and grant aid.
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.	<input checked="" type="radio"/> Yes

Please attach the requested signed audited/independently examined accounts. The limit for any single file uploaded as supporting materials with your application is 6MB. Please ensure documents are saved in PDF form where possible in order to minimise size.

Q9. Has your organisation been awarded Darwin Initiative funding 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
DPLUS070	Miss Annalea Beard	Oceanographic influences on the pelagic ecosystem
DPLUS039	Mrs Elizabeth Clingham	Sustainable development and management of St Helena's fisheries and marine tourism
DPLUS020	Miss Isabel Peters	St Helena baseline assessment: A foundation for effective environmental management
DLPUS024	Miss Shayla Ellick	Darwin Fellowship-MRes Carbon sequestration in community forests, St Helena
DLPUS029	Mr Lourens Malan	Securing St Helena's rare cloud forest trees and associated invertebrates
DPLUS018	Miss Annalea Beard	Taxonomic and conservation status of Oceanodroma

4. Project Partners

Q10. Project partners

Please list all the partners involved (including the Lead Organisation) and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. This section should illustrate the capacity of partners to be involved in the project, and how local institutions, local communities, and technical specialists are involved as appropriate.

Please provide written evidence of partnerships. Please add fields for more partnerships, if required. Details on roles and responsibilities in this project must be given for the Lead Organisation and all project partners.

Lead Organisation name:	St Helena Government
Details (including roles and responsibilities and capacity to engage with the project):	As project lead St Helena Government will have overall responsibility for project management, reporting to Darwin both financial and technical. They have proven capacity, experience and expertise completing successful Darwin projects.

Do you have partners involved in the Project?

Yes

The limit for any single file uploaded as supporting materials with your application is 6MB. Please ensure documents are saved in PDF form where possible in order to minimise size.

1. Partner Name:	Centre for Environment, Fisheries and Aquaculture Science (CEFAS)
Website address:	www.cefas.co.uk
Details (including roles and responsibilities and capacity to engage with the project):	As project partner CEFAS will support capacity building on island, give technical advice and lead on ecological data analysis. CEFAS are experts in crustacean science with a proven track record in engaging with British Overseas Territories.

Would you like to include a letter of support from this organisation?	<input checked="" type="radio"/> Yes
Letter of Support:	<p>The limit for any single file uploaded as supporting materials with your application is 6MB. Please ensure documents are saved in PDF form where possible in order to minimise size.</p> <div data-bbox="564 461 1390 636" style="border: 1px solid #ccc; padding: 5px;"><hr/><hr/><hr/></div>

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

No

5. Project Staff

Q11. Project staff

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

These should match the names and roles in the budget spreadsheet.

Please provide 1 page CVs for these staff.

Name (First name, Surname)	Role	% time on project	CV attached below?
Vacant	Lobster Project Officer	10 0	<input checked="" type="checkbox"/>
Vacant	Lobster Fieldwork Assistant	50	<input checked="" type="checkbox"/>
Miss Annalea Beard	Project Lead	50	<input checked="" type="checkbox"/>
Miss Leeann Henry	Lobster Fieldwork Manager	25	<input checked="" type="checkbox"/>

Do you require more fields?

Yes

Name (First name, Surname)	Role	% time on project	CV attached below?
Mr Martin Cranfield	Fieldwork Assistant	35	<input checked="" type="checkbox"/>
Mr Gerald Benjamin	Senior Fisheries Officer	10	<input checked="" type="checkbox"/>
Dr Ewen Bell	Assessment advisor	5	<input checked="" type="checkbox"/>

Ms Serena Wright	Data Analyst	10	<input checked="" type="checkbox"/>
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Please provide 1 page CVs (or job description if yet to be recruited) for the Project staff listed above. Ensure the file is named clearly, consistent with the named individual and role above. The limit for any single file uploaded as supporting materials with your application is 6MB. Please ensure documents are saved in PDF form where possible in order to minimise size.

Have you attached all Project staff CVs?

Yes

6. Background & Methodology

Q12. Summary of Project

Please provide a brief summary of your project, its aims, and the key activities you to undertake. Please note that if you are successful, this wording may be used by Defra in communications e.g. as a short description of the project on GOV.UK. Please bear this in mind, and write this summary for a non-technical audience.

The project will expand our knowledge of key commercial lobster species ecology, review existing data, legislation and current management practices and make recommendations to ensure long-term sustainability of the populations.

Q13. Background

What is the current situation and the problem that the project will address? How will it address this problem? What key OT Government priorities and themes will it address?

The population status of brown spiny lobster (*Panulirus echinatus*) and endemic red slipper lobster (*Scyllarides obtusus*) on St Helena is largely unknown. Detailed information on abundance, distribution, movement, size at maturity and seasonality of reproductive cycles is critical for ensuring the sustainable management of this species. In 1991 a brief evaluation of the fisheries potential of the two lobster species was completed by Dr Ninnes, this information is now outdated. Research to date has been undertaken on species such as tunas, whale sharks and seabirds. There is currently a project running on the oceanographic influences on the pelagic ecosystem (DPLUS070) however little research has been undertaken on other commercially exploited species to verify practices are suitable and sustainable.

St Helena declared a Category VI Sustainable use MPA in 2017. A key-part of ensuring sustainability is to understand the ecology of species and how this relates to its current and potential future use.

This project will fill existing data gaps identified under the Marine Management Plan 2016 and address key priorities for DPLUS R6, including (i) improving marine conservation, protection or management (ii) Promoting sustainable fisheries (iii) Developing tools to monitor biodiversity to inform sustainable development policies and practices.

Q14. Methodology

Describe the methods and approach you will use to achieve your intended outcomes and impact. Provide information on how you will undertake the work (materials and methods) and how you will manage the work (roles and responsibilities, project management tools etc). Give details of any innovative techniques or methods.

We propose to utilise and build upon the existing acoustic array around St Helena's coastline to trial a novel approach to gauge lobster population movements. Five acoustic receivers (Vemco VR2W-69kHz) will be deployed along the coast to form a grid system in conjunction with the existing array to enable finer scale movements to be determined. A selection of fifteen lobsters at the start of the project will be fitted with acoustic telemetry devices (vemco v9); these light weight devices will be fitted to the top of the lobster carapace with marine epoxy putty. The trial will enable us to evaluate the suitability and effectiveness of this technique to monitor the behaviour and movement of the lobster populations at St Helena as well as to help inform on key ecological behaviours for the species.

A project manager and part time local assistant will be employed to implement the project with help from St Helena Government staff. A monthly tag and release programme for the two lobster species will be established. The first six months of the project will include an intense tagging period to maximise the volume and quality of biological data collected. Lobsters will be caught by hand and collected either during underwater dive surveys of key habitat areas and/or through the establishment of a mobile lobster pot network along the coast. The lobsters will be taken to the surface to be measured, tagged with one conventional T-bar tag and various biometrics, sex and maturity data taken before being released. A minimum of 50 lobsters for each species will be double tagged to evaluate tag retention rate. Monthly night dive surveys consisting of two 50x 3 metre transects will be conducted to determine abundance, distribution and habitat association. Upon encountering a lobster during a survey the activity, position, substratum type and coverage, sex, carapace length, presence/absence of eggs will be noted.

A publicity campaign including a reward scheme for the tagging programme will insure a high return rate from rock fishermen as well as landed lobsters at the commercial fisheries. Landed and returned tagged lobsters will be re-sampled for biometrics. All biological data will be incorporated into the existing St Helena Government fisheries database. A survey will be conducted by the project manager of local rock and commercial fishermen through a combination of one to one interviews and completion of a questionnaire. The data collected will be summarised to evaluate and quantify the past and present lobster fisheries at St Helena. The project manager will also conduct a data mining and research exercise to evaluate the past commercial lobster fishery landings and review relevant current policies and legislation. This data will be summarised to identify of any areas within these that need to be addressed and make recommendations for improvement. New and existing data will be combined to model the long-term viability and sustainability of lobster populations under different management scenarios and presented to key stakeholders for agreement and adoption by SHG.

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

The limit for any single file uploaded as supporting materials with your application is 6MB. Please ensure documents are saved in PDF form where possible in order to minimise size.

File name	Date uploaded
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7. Objectives, Stakeholders & Sustainability

Q15. Project Objectives

How does this project:

- Deliver against the priority issues identified in the assessment criteria
- Demonstrate technical excellence in its delivery
- Demonstrate a clear pathway to impact in the OT(s)

This project will deliver against five areas in the assessment criteria;

- i) Improving marine conservation, protection or management, including developing integrated marine management plans; The project will increase the understanding of commercially exploited lobster that will contribute to the local management of lobster stocks and facilitate better management of the marine environment.
- ii) Promoting sustainable fisheries including the development of sustainable management plans and development of the fisheries sector, including aquaculture; This project will provide evidence based advice on the population ecology of key commercial species, the outcomes will feed directly into developing sustainable fisheries management practices.
- iii) Developing tools to value ecosystem services and monitor biodiversity to inform sustainable development policies and practices; the tagging scheme will enable continued monitoring of the lobster population, understanding the structure and viability of species populations will facilitate better management.
- iv) Developing ecosystem-based initiatives for the conservation and sustainable use of the terrestrial and marine environments; The project enhance our ability to look at the marine ecosystem as a whole by leading on the development of best practice techniques for sustainable management from the core ecological and biological data that will be collected through the project.
- v) Developing data systems on biodiversity (and human activities affecting biodiversity) to help develop policies and management plans. This should include baseline survey and subsequent monitoring; Data collected will be integrated into the existing fisheries science database enhancing the resource that can be used to inform management decisions and policies.

Technical Excellence;

Through this project, fisheries practices and management will be developed so that catch quotas are evidence based and the correct level of species protection are in place. Working with CEFAS will ensure technical expertise is on hand to give direction and guidance when needed and ensure that sample analysis is to a high level. The experience of managing several other Darwin projects (DPLUS070, DPLUS039 and 19-031) have allowed this project budget, targets and work plan to be based on

realistic costs, timeframe and achievability. The match funding contributed by the project partner ensures collaboration and excellent value for money against the total project cost.

Impact;

Individuals and an institution with large amounts of experience and expertise in conducting high quality marine, fisheries and conservation science have formed a partnership to deliver this project. This project will establish a baseline assessment of lobster stocks setting a firm foundation for effective and sustainable fisheries management and future species monitoring. This project will have a significant legacy in terms of local capacity, data resources and national governance to be sustained long after the project.

Q16. 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.

There will be joint project management between the fisheries regulatory and marine conservation section of SHG. The project will employ a project manager who will lead on implementing the project and liaise with the local fishing community as well as working closely with the fisheries task group an organisation which represents all interests in the development of commercial fishing on St Helena. St Helena Fisherman's Association, the St Helena Fisheries Corporation, recreational, commercial and sport fishermen will be regularly informed through stakeholder meetings and being invited onto the project steering group. The project manager will lead in public engagement and be an active presence at key sites at key times (Maundy Thursday, good Friday etc) where fishing takes place (wharf, west rocks, Rupert's). The project manager will also conduct a school outreach programme including carrying out assemblies and class lectures on lobster and fisheries on St Helena.

Members of the public will be kept informed of the project through local media (radio, newspapers).

CEFAS will provide technical support and analysis of biological samples (gonads), tagging and acoustic data.

Q17. Institutional Capacity

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

St Helena Government Environmental and Natural Resources Directorate (ENRD)

ENRD is responsible for environmental management for St Helena Government. The ENRD is divided into two divisions; the Environmental Management Division (EMD)

and the Agriculture and Natural Resources Division (ANRD).

The Marine Section staff form part of EMD and has been involved in previous Darwin Plus projects, including the current DPLUS070 and the previous projects DPLUS039 and “Mapping St Helena’s biodiversity to create a Marine Management Plan”.

In kind staff time will be provided by:

- Three Marine Conservation Staff
- Administrative, IT, HR and logistical infrastructure

This section leads through creation and implementation of policy and regulation, and provides advice, underpinned by clear, transparent, evidence-based research.

The Fisheries Section of ANRD has also been involved in the previous DPLUS039 and will provide in kind staff time by the Senior Fisheries Officer.

Cefas is internationally renowned for delivering applied marine science solutions based on high quality science to conserve and enhance the aquatic/terrestrial environment and promote sustainable management of natural resources. It has a range of resources and wide breadth of expertise with a highly diverse workforce of over 500 staff with international experience backed by over 100 years of organisational experience.

Cefas directly supports delivery of UK fisheries managers’ key priorities throughout the European and North Atlantic management systems. Internationally Cefas is regularly commissioned by fishery management bodies to conduct research to inform decisions globally. Cefas have completed numerous projects working with fisheries stakeholders, recognising the importance of fishers’ buy-in to achieve successful outcomes.

Cefas’s dedicated tagging and shellfish teams provide data collection and advice for the management of fisheries. Expertise includes devising and analysing innovative tagging programs, shellfish biology, stock assessment and management advice including representation in international fora. Management advice on shellfisheries is supported by excellent assessment and modelling skills.

Q18. Sustainability

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

The project will help develop new skills and expertise on St Helena to help ensure long-term sustainable management of marine resources. Following completion of the project, and on the basis of the data collected, recommendations will be made to ensure sustainable harvesting of the lobster species to be implemented by SHG. With marine based tourism and fisheries as areas targeted for growing St. Helena’s economy this area is high on the agenda at all levels within Government as well as

key stakeholders of the local fishing and marine tourism industry.

This project will ensure that there is clear and supported evidence based advice, which will feed into policy development, fisheries licencing, sustainable development and SHG strategic planning.

This project will build stronger links with researchers at CEFAS, which will be valuable for future research.

8. Funding and Budget

Q19. Budget

Please complete the appropriate Excel spreadsheet linked below, 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 Darwin Plus budget.

R6 D+ Budget form for projects under £100,000

R6 D+ Budget form for projects over £100,000

Please refer to the Finance Guidance for more information.

N.B.: Please state all costs by financial year (1 April to 31 March) and in GBP.

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.

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

Q20. Co-financing

Are you proposing co-financing?

Yes

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 the "Guidance for Applicants" documents)

St Helena Government will contribute significant amounts of staff time and resources to support this project, including admin and financial management.

Unsecured

Provide details of any co-financing where an application has been submitted, or that you intend applying for during the course of the project. This could include

co-financing from the private sector, charitable organisations or other public sector schemes.

Date applied for	Donor Organisation	Amount	Currency code	Comments

Please give brief details including when you expect to hear the result. Please ensure you include the figures requested in the Budget Spreadsheet as Unconfirmed funding.

n/a

Do you require more fields?

No

9. Financial Controls, Value for Money & Open Access

Q21. 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?

All project funding will be routed through the EMD accounts section which operates under audited SHG accounting procedures.

All monies will be placed into a designated account and have a designated financial officer to ensure finances/budgets are monitored.

The Project lead will have an overview of the entire project and will regularly monitor the budget. Items purchased in the host country will be bought through the SHG procurement process which has strict guidelines for ensuring value for money and transparency. An independent auditor will audit expenditure.

ENRD already has experience of successfully managing projects totalling £1.7 million in 2014/15 along with core budget.

Q22. Financial Management Risks

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 delayed start date will ensure successful delivery though appropriate administrative preparation within SHG for the project. The project itself will be financially managed by St Helena Government under strict policies and guidance from key administrative staff inhibiting any risks associated with fraud or bribery.

Q23. 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.

The project endeavours to bring expertise to St Helena to develop capacity and deliver outcomes that will be invaluable to the long-term management of St Helena's marine environment. Bringing outside expertise to St Helena is not cheap, but utilising outside experts to train and mentor St Helena staff is a cost effective means of delivering this project.

Significant matched funding will be contributed by CEFAS, which demonstrate the

significance of this project to St Helena.

Q24. 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.

A project web-page will be developed for dissemination of information and a Facebook page created for brief updates. Key reports from the project will be posted on the project web-site and on the SHG website. Meta-data from the project will be listed on the project web-site and data will be made available to users once the project has been completed. The fisheries database that will be expanded with project data will be made available over the SHG or SAERI web-site.

Any publications will be in Open Access journals or fees paid to enable Open Access.

10. Logical Framework

Q25. 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.

Annex D and Annex E in the Guidance Notes provides helpful guidance on completing a logical framework, including definitions of the key terms used below.

Impact:

The lobster populations at St Helena are sustainably managed and suitably protected.

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
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Outcome:

Establish a basic understanding of the population and foraging ecology of two lobster species at St Helena to evaluate current lobster fisheries practices and facilitate sustainable management

0.1 St Helena's population particularly the fishing community understand basic ecological features of the lobster populations and the importance of sustainable fisheries practices.
0.2 Management of St Helena lobster populations utilises ecological information gained through the project.

0.1 Records of newspaper articles, radio interviews, talks and presentations.
0.2 Lobster management report includes revision and recommendations for fisheries licencing, legislation and habitat protection.

Members of the public interpret the information available to them appropriately.

<p>Output 1:</p> <p>Capacity building, with ENRD staff trained in crustacean data collection methods and sampling techniques.</p>	<p>1.1 Project Officer and Fieldwork Assistant appointed. 1.2 St Helena staff able to undertake tagging and basic biological data collection independently. 1.3 St Helena staff able to conduct habitat and abundance surveys and maintain a lobster pot network at St Helena independently.</p>	<p>1.1 Employment records. 1.2 SHG staff training hours logged by CEFAS and project officer. Summary training report provided. 1.2 Sub-set of independently collected data will be cross checked by CEFAS/project officer. 1.3 Fieldwork supervision report</p>	<p>1.1 Travel arrangements for CEFAS staff can be organised for appropriate time.</p>
<p>Output 2:</p> <p>Undertake research on existing lobster fishery practices, policies, legislation, biological and catch data.</p>	<p>2.1 data mining of existing biological and catch data. 2.2 meetings with relevant stakeholders and members of the public to research relevant data on lobster fisheries. 2.3 Quantify findings in summary report.</p>	<p>2.1 bibliography of existing known data sources, catch data integrated into EMD fisheries database. 2.3 A minimum of 50 transcribed face to face interviews and 100 questionnaires completed. 2.3 Summary report of findings published online.</p>	<p>Data/location of data is accessible (via various routes) Stakeholders provide data/location of data Members of the public co-operate with research techniques.</p>

<p>Output 3:</p> <p>Population size, structure and growth of lobster species established.</p>	<p>3.1 Tag and release programme established with 2500 lobsters tagged and associated biometric data collected and analysed within 22 months.</p>	<p>3.1 Publication of article in peer reviewed journal.</p>	<p>Fishermen assist with data collection.</p>
<p>Output 4:</p> <p>Lobster abundance, habitat association and foraging ecology established.</p>	<p>4.1 100 diet samples and 20 tissue samples collected and analysed within first year. 4.2 120 dive surveys completed within the first six months and 144 within the following year. 4.3 integration of data into existing datasets, analysed and summarised.</p>	<p>4.1 & 4.2 Project activities reported in online blogs, social media posts and newsletters. 4.3 Peer-reviewed manuscript accepted for publication in high impact scientific journal.</p>	<p>Assumes samples can be collected in sufficient number and sea conditions acceptable for completion of dive surveys.</p>

<p>Output 5:</p> <p>Experimental acoustic telemetry technology trialled to monitoring lobster population movements.</p>	<p>5.1 Acoustic array grid established and 15 acoustic telemetry devices deployed within first six months. 5.2 Acoustic telemetry data collected and analysed by end of project.</p>	<p>5.1 Project activities reported in online blogs, social media posts and newsletters. 5.2 results incorporated into peer reviewed manuscript.</p>	<p>Acoustic array and location suitable for collection of lobster movement data.</p>
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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.

Yes

Project summary	Measurable Indicators	Means of verification	Important Assumptions
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<p>Output 6:</p> <p>Increase public awareness of the fisheries science research programme and its relevance to sustainable management practices.</p>	<p>6.1 St Helena residence actively participate in tag reward scheme.</p> <p>6.2 Documented public talks, pamphlet produced, presentations and educational resources freely available online.</p> <p>6.3 Question and answer sessions with key stakeholders completed quarterly.</p> <p>6.4 Documented monthly newspaper articles and radio interviews produced.</p>	<p>6.1 Statistical increase in tag return rate through the course of the project.</p> <p>6.2 Project and SHG website.</p> <p>6.3 Stakeholder meeting minutes.</p> <p>6.4 local and international media.</p>	<p>St Helena residence will be interested in the fisheries science programme.</p>
<p>Output 7:</p> <p>Long term lobster fisheries research programme established.</p>	<p>3.1 Long term research programme manual prepared for implementation post project.</p>	<p>3.1 Research programme approved by ENRD and protocol published on website.</p>	<p>SHG are willing to fund/support research programme.</p>

<p>Output 8:</p> <p>Optimal solutions for lobster population management proposed based on integrated biological, habitat data, historic and present fishing pressure, threat assessment and formulate into a lobster population management plan.</p>	<p>8.1 Bio-economic analysis of St Helena lobster populations conducted to assess long-term viability under different future management scenarios.</p> <p>8.2 Lobster population management options report produced based on results and recommendations from outputs 2,3,4 and 5 and circulated for stakeholder review prior to adoption by SHG.</p>	<p>8.1 & 8.2 Population management option report circulated and published online via SHG website.</p>	<p>Assumes SHG and key stakeholders approve recommendations for sustainable lobster fisheries management.</p>
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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. Each new activity should start on a new line.

- 1.1 Write Job profiles, devise recruitment panel, prepare job adverts, and advertise posts.
- 1.2 Recruit suitably experienced project officer and fieldwork assistant
- 1.3 St Helena staff trained in crustacean monitoring techniques
- 1.4 St Helena staff gain practical experience in monitoring techniques (tagging, biometrics, dive surveys).
- 1.5 Training log maintained by SHG staff and training/supervision report compiled and verified by CEFAS/Project Officer.

- 2.1 Review and collate existing fisheries biological and catch data.
- 2.2 Review relevant current lobster legislation, licensing and management.
- 2.3 Conduct research into the past and present lobster fishery (commercial and

recreational) through a questionnaire and face to face interviews.

2.4 Threat analysis completed to identify areas for improvement and compilation of possible solutions.

2.5 Interim report on findings and implications summarised and presented to key stakeholders.

3.1 Establish mobile lobster pot network along coastline.

3.2 Deploy a minimum of 10 pots for 25000 trap hours within the first six months and 29000 trap hours within the following year.

3.3 Tag, measure and release a minimum of 1500 spiny and 1000 slipper lobster from a range of sizes with a subset of 50 (25 of each species) double tagged within 22 months.

3.4 A minimum of 50 gonads collected for examination.

3.5 Integrate tagging and biometric data into existing EMD fisheries database.

3.6 Paper prepared on lobster population size, structure and growth.

4.1 100 diet samples collected for examination and 20 tissue samples for stable isotope analysis

4.2 Completion of 120 habitat, abundance and diet surveys within the first six months and 144 within the following year.

4.3 Stable isotope and diet analysis completed and compiled with existing pelagic data to map St Helena's trophic food web relationships.

4.4 Habitat survey data combined with existing seabed spatial data to identify and map key areas or habitat zones with high lobster abundance.

4.5 Paper prepared on habitat, abundance and foraging ecology.

5.1 install acoustic receiver array grid inshore.

5.2 Deploy 15 acoustic telemetry devices onto lobster within first 6 months.

5.3 Collect and analyse telemetry data to establish and map movement ranges, residence times, cost effectiveness and evaluation of method as lobster monitoring technique.

6.1 Launch and publicise reward scheme for lobster tagging programme.

6.2 Plain English pamphlets and presentations prepared to inform St Helena stakeholders, public, school children and visitors about the lobster populations and the project.

6.3 Attended regular key stakeholder meetings to inform of project progress

6.4 Produce monthly newspaper articles and radio interviews for local media, other OT's and international media.

7.1. Lobster research programme reviewed to determine appropriate long-term monitoring programme.

7.2. Long-term research and monitoring programme designed and established.

8.1 Bio-economic analysis of St Helena's lobster fisheries conducted to assess its long term viability under different future management scenarios.

8.2 Lobster management plan options report produced based on project findings and circulated for stakeholder review.

8.3 Lobster fisheries management plan finalised and accepted by SHG.

11. Implementation Timetable

Q26. Provide a project implementation timetable that shows the key milestones in project activities

Please complete the Excel spreadsheet linked below to describe the intended workplan for your project.

[Darwin Plus Implementation Timetable XLS](#)

Please add 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.

12. Monitoring and Evaluation

Q27. 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.

EMD management will co-ordinate the budget and monitor deliverables through quarterly meetings held via Skype where the project partner will review progress, identify any areas that that project has fallen behind schedule and how to address such issues. The meetings will also consider any requirements to adapt the sampling frequency / protocol in light of information collected. The project lead will be responsible for reporting to Darwin as stipulated.

An MOU will be drawn up and will document the obligations of all parties for successful delivery of the project against the time frame ensuring all project partners are on track for completing their specific requirements under the project outputs.

Outputs including training will form part of marine section staff annual targets and will be assessed by their line manager on a biannual basis. The project lead will report to the Head of ENRD on a monthly basis, reporting progress and any issues arising, impacts on the project and methods for mitigating against these.

Number of days planned for M&E	15
Total project budget for M&E (this may include Staff and Travel and Subsistence Costs)	£9,920.00
Percentage of total project budget set aside for M&E (%)	5

13. Certification

Q28. Certification

On behalf of the

company

of

St Helena Government

I apply for a grant of

£198,394.00

in respect of all expenditure to be incurred during the lifetime of this project based on the activities and dates specified in the above application.

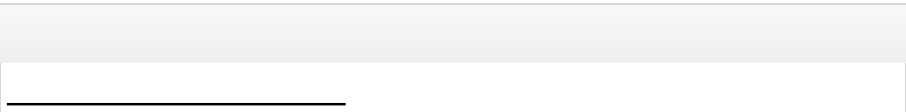
I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

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

- I have uploaded CVs for project principals and letters of support.
- I have uploaded our most recent signed audited/independently verified accounts and annual report (if appropriate).



Name	Mr Derek Henry
Position in the organisation	Director of Environment and Natural Resources Directorate, SHG

Signature (please upload e-signature)	
Date	10/10/2017

If this section is incomplete the entire application will be rejected.

14. Submission Checklist

Checklist for submission

	Check
Have you read the Guidance documents, including the ' <u>Guidance Notes for Applicants</u> ' and ' <u>Finance Guidance</u> '?	<input checked="" type="checkbox"/>
Have you read, and can you meet, the current <u>Terms and Conditions</u> for this fund?	<input checked="" type="checkbox"/>
Have you provided actual start and end dates for your project?	<input checked="" type="checkbox"/>
Have you provided your budget based on UK government financial years i.e. 1 April – 31 March and in GBP?	<input checked="" type="checkbox"/>
Have you checked that your budget is complete, correctly adds up and that you have included the correct final total at Q7?	<input checked="" type="checkbox"/>
Has your application been signed by a suitably authorised individual?	<input checked="" type="checkbox"/>
Have you uploaded a 1 page CV for all the Project Staff (listed at Q11) on this project, including the Project Leader?	<input checked="" type="checkbox"/>
Have you included a letter of support from the applicant organisation, <u>main</u> partner(s) organisations and the relevant OT Government?	<input checked="" type="checkbox"/>
Have you uploaded a signed copy of the last 2 years annual report and accounts for the lead organisation, or provided an explanation if not?	<input checked="" type="checkbox"/>
Have you checked the <u>Darwin Plus website</u> to ensure there are no late updates?	<input checked="" type="checkbox"/>