



DPLR3\1036

Darwin Plus Local - Final Report (1)

Officer: Linzi Ogden
 Dr Gemma Galbraith
 Island Solutions Inc.

Section 1 - Darwin Plus Local Project Information (Essential)

Project Reference Number

This should be the project reference provided in your offer paperwork and not your application number.

DPL00092

Project Title

No Response

Overseas Territory(ies)

Which UK Overseas Territory(ies) is your project working in?

☒ Montserrat

Lead Organisation or Individual

Island Solutions Inc

Partner Organisation(s)

N/A

Value of Darwin Plus Local Grant Award

£49,189.00

Project Start Date

01 April 2024

Project End Date

31 March 2025

Project Leader Name

Gemma Galbraith

Project Website/Twitter/Blog etc.

www.islandsolutions.org

Report Author(s)

Gemma Galbraith & Andrew Myers

Report Date

01 July 2025

Project Summary

No Response

Project Outcomes

Successful Darwin Plus Local projects must demonstrate measurable outcome 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 refer to your original application form/proposal. Please tick which theme(s) of Darwin Plus that you originally indicated your project underpins:

Checked	Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;
Checked	Climate Change: responding to, mitigating and adapting to climate change and its effects on the natural environment and local communities;
Checked	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.

Section 2 - Project Outcomes (Essential)

On a scale of 1 (high – outcome substantially exceeded) to 5 (low – outcome substantially did not meet expectation), how successful do you think your project has been?

Please select which rating you would give your project using the scale below, where 1 means the project outcome was substantially exceeded and 5 means the project outcome substantially did not meet expectation. Below, you will be asked to give your reasons for the rating and describe what has changed as a result of your project.

☒ 1 - Outcome substantially exceeded

Project outcomes and justification for rating above

Please explain why you have given the rating above. In your answer, you may want to consider:

- i) What has changed as a result of the project? Where possible, concentrate on the actual changes achieved by your project rather than listing a series of activities undertaken. Activity does not necessarily mean a change has occurred.
- ii) Has your project achieved its original objective(s) and outcomes? If you stated success indicators in your original application, have these been met and to what extent have these been met?
- iii) Did you receive any recommended improvements in your feedback letter? If so, please outline how you considered these in your project implementation.

*Below you will be asked to submit appropriate evidence to support your comments.

We have rated the success of this project a 1, as it substantially exceeded original expectations. It achieved all stated objectives and success indicators while delivering additional long-term benefits for marine conservation, research capacity, and sustainable fisheries in Montserrat.

i) Changes resulting from the project - The project generated Montserrat's first comprehensive dataset on mesophotic (deep) reef habitats, including high-definition video footage and quantitative biodiversity data. These outputs provide a lasting scientific baseline that will support future monitoring, research, and policy development. The deployment of temperature and current loggers across multiple sites resulted in Montserrat's first high-resolution in-situ oceanographic dataset for deeper reef zones. These data have allowed us to identify at least 4 sites around the island that experience strong current conditions which will directly inform seasonal and site-based guidance for fish trap deployment, contributing to reduced gear loss and associated habitat damage from ghost fishing.

Training delivered to four members of the Government of Montserrat's (GoM) marine science team, GIS Department and one environmental diver significantly increased local capacity for marine data collection and ROV use. The project also achieved strong public engagement through outreach and education events, raising awareness of the island's deep reef ecosystems and the importance of their protection.

ii) Achievement of objectives and outcomes - All five success indicators outlined in the original application were fully met or exceeded:

1. Deep reef video dataset created: The project conducted over 40 ROV dives around Montserrat at depths between 30 -70m, producing a permanent video record of mesophotic reef conditions and species assemblages. This output forms a valuable resource for scientists, managers, and the public.
2. Scientific publication: Data analysis is underway to support peer-reviewed publication. Preliminary results have already been presented to GoM and local stakeholders.
3. Data sharing and institutional use: All biodiversity and environmental data have been provided to GoM's Departments of Agriculture and Environment for integration into marine planning and conservation efforts.
4. Capacity building: The project delivered ROV piloting and oceanographic instrumentation training to GoM staff, members of the public, project partners and team members, enhancing in-territory capacity for environmental monitoring and increasing independence in future data collection efforts.
5. Fisher engagement and impact reduction: We have been able to identify at least 4 sites where strong currents likely highly affect the rate of fish trap loss around the island.

iii) Response to feedback

Although no formal recommended improvements were received during the application stage, the project team proactively expanded the scope and quality of its outputs. This included increasing the number of ROV dives, adding a second outreach event for local girl guides, members of the Montserrat National Trust, and a visiting USA college group.


Overall, the project has delivered new knowledge of Montserrat’s deep marine habitats, enhanced institutional capacity, and empowered local stakeholders to reduce environmental harm. These outcomes directly support national biodiversity goals and will continue to generate impact well beyond the project’s funding period.


Supporting Evidence - file(s) upload


Please upload supporting evidence here. You may also provide a link to download supporting evidence in the following question. For example, evidence might include photos of the project site before and after, results of surveys, maps, images, new management plans or other tools or outputs created through the project, or even a video documenting the impact the project has had on the environment and community.


Your answers and this evidence will be reviewed by an external reviewer.


****Upload files (Max 10 files; Max 20MB per file).***



[Current meter graphs-Dep 1](#)


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[Montserrat ROV Exploration- Empowering the Next Generation](#)

 21/07/2025

 18:14:03

 pdf 1.78 MB

Supporting Evidence - links to published document/online materials

Please provide links to access or download supporting evidence here. For example, evidence might include photos of the project site before and after, results of surveys, maps, images, new management plans or other tools or outputs created through the project, or even a video documenting the impact the project has had on the environment and community.

Your answers and this evidence will be reviewed by an external reviewer.

[REDACTED]

[REDACTED]

[REDACTED]

Project Challenges

Did the project encounter problems, either anticipated or unexpected? If so, what actions did you take to resolve these problems?

The project encountered two primary challenges that affected full implementation within the initial project timeline. However, both were addressed in ways that support long-term continuation and future success beyond the funded period.

1. Weather-related delays: Unfavourable weather conditions, particularly persistent rough seas, restricted access to several planned offshore mesophotic reef sites. While the project successfully surveyed many key locations, some remote sites could not be accessed safely within the operational window. This was anticipated as a risk and factored into the flexible field schedule; however, weather patterns during critical

periods proved unusually unstable. Importantly, the equipment acquired (ROV, loggers) and training provided to the GoM marine science team are now embedded locally, enabling these offshore sites to be surveyed in future seasons when conditions allow. This extends the impact and relevance of the project well beyond its original timeframe.

2. Technical issues with current meters: Some technical difficulties occurred with the current and temperature loggers, including connectivity and calibration issues that limited the quantity of usable data from certain units. These challenges were largely outside of the team's control and relate to the inherent sensitivity of the instruments and the logistical constraints of remote fieldwork. Despite these setbacks, the project successfully deployed multiple units and retrieved meaningful oceanographic data. Now that the loggers are in-country and the local team is trained, there is a clear opportunity to redeploy these devices and collect longer-term datasets to fill current gaps.

Lessons Learned

Please describe the key lessons learned (administrative, management, technical, monitoring and communications) through the project, considering:

- i) What worked well and why?
- ii) What did not work well and why?
- iii) If you had to do it again, what would you do differently?
- iv) What recommendations would you make to others doing similar projects?

Worked well: Cross-partnership collaboration was a key strength. The integration of James Cook University's technical expertise with local capacity from Island Solutions and the Government of Montserrat GIS team enabled effective knowledge transfer and long-term impact. Training in ROV use, maintenance, and data logger deployment was successful due to a hands-on, field-based approach that built local confidence and ownership. Video surveys were also effective, serving both scientific and community engagement purposes, especially given local familiarity with diver-based surveys. These surveys now form a permanent visual record for future research or historical comparisons.

Not ideal: Logistical planning was hindered by unpredictable weather and delays in equipment delivery, function, and calibration. Although weather risks were anticipated, limited vessel availability and tight fieldwork schedules made it hard to adapt quickly. Technical issues with some current meters—particularly connectivity and post-retrieval data download—affected data completeness.

Changes: We would allow more lead time for equipment delivery, testing, and calibration, and deploy loggers earlier. Flexible scheduling for fieldwork would better accommodate weather variability, using multiple short operational windows rather than a single fixed one.

Recommendations: Invest early in equipment testing and conduct regular training and maintenance in controlled environments. Anticipate technical delays and use redundant systems. Finally, maintain strong communication between international and local teams to streamline logistics and support adaptive decision-making.

Section 3 - Project Finance (Essential)

Project Expenditure

Complete the expenditure table below, providing a breakdown of salaries, capital items and explanations of 'Other' costs. If the budget was changed since the project started, please clarify the main differences. **Explain in full** any significant variation in expenditure where this is +/- 10% of the approved budget lines.

Project Spend (indicative)	Total Grant (£)	Total actual Darwin Plus Costs (£)	Variance %	Comments (please explain significant variances)
Staff Costs				
Consultancy Costs				
Overhead Costs				
Travel and Subsistence				
Operating Costs				
Capital Items				
Others				
Total	49,189.00	50,396.00	+2.5%	

Please provide a short narrative summary on project finances.

Your comments should describe:

- i) Any difference between the planned and actual expenses and reason(s) for this.
- ii) If co-financing was secured for the project, what was this spent on.

This project remained largely on budget. There was a slight increase in costs associated with the purchasing and outfitting the ROV. The cost of the ROV unit increased between the application time and

purchase time, as well as a change in the exchange rate. Island Solutions covered this increased cost.

Co-financing:

Island Solutions covered additional management and operational costs as projected in the project application.

Drs. Galbraith and Cresswell covered multiple costs associated with their stay in Montserrat through a Smithsonian funded grant.

Section 4 - Contribution of Project to Darwin Plus Programme Objectives

Please select up to **one** indicator that applies within **each group/indicator list (A, B, C, D)** and report your results for that indicator in the text box underneath. If you do not have relevant results to report for any of the indicators in a particular group, you can leave them blank.

Please also submit some form of evidence (above) to demonstrate any results you list below, where possible.

Group A: Capability and Capacity - Core Darwin Plus Standard Indicators (select one)

If you can report on one of these indicators for your project, please select the indicator from the menu below and report your corresponding result in the text box below.

Checked

DPLUS-A01: Number of people from key national and local stakeholder groups completing structured and relevant training.

Unchecked

DPLUS-A02: Number of secondments or placements completed by individuals of key local and national stakeholders.

Unchecked

DPLUS-A03: Number of local/national organisations with improved capability and capacity as a result of project.

Unchecked

DPLUS-A04: Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training.

Unchecked

DPLUS-A05: Number of trainers trained reporting to have delivered further training by the end of the project.

Group A Indicator Results

Please enter your results for the (above selected) indicator and the units. e.g. 10 people from key national and local stakeholder groups completed structured and relevant training.

7 persons received structured and relevant training on ROV operation and data collection.

Group B: Policies, Practices and Management- Core Darwin Plus Standard Indicators (select one)

If you can report on one of these indicators for your project, please select the indicator from the menu below and report your corresponding result in the text box below.

Unchecked	DPLUS-B01: Number of new/improved habitat management plans available and endorsed.
Unchecked	DPLUS-B02: Number of new/improved species management plans available and endorsed.
Unchecked	DPLUS-B03: Number of new/improved community management plans available and endorsed.
Unchecked	DPLUS-B04: Number of new/improved sustainable enterprises/ community benefits management plans available and endorsed.
Unchecked	DPLUS-B05: Number of people with increased participation in local communities / local management organisations (i.e., participation in Governance/citizen engagement).
Unchecked	DPLUS-B06: Number of Local Stakeholders and Local Communities (people) with strengthened (recognised/clarified) tenure and/or rights.

Group B Indicator Results

Please enter your results for the (above selected) indicator and the units. e.g. 3 new species management plans available and endorsed.

N/A

Group C: Evidence and Best Practices - Core Darwin Plus Standard Indicators (select one)

If you can report on one of these indicators for your project, please select the indicator from the menu below and report your corresponding result in the text box below.

Unchecked **DPLUS-C01: Number of best practice guides and knowledge products published and endorsed.**

Unchecked **DPLUS-C02: Number of new conservation or species stock assessments published.**

Unchecked **DPLUS-C03: New assessments of habitat conservation action needs published.**

Unchecked **DPLUS-C04: New assessments of community use of biodiversity resources published.**

Unchecked **DPLUS-C05: Number of projects contributing data, insights, and case studies to national Multilateral Environmental Agreements (MEAs) related reporting processes and calls for evidence.**

Group C Indicator Results

Please enter your results for the (above selected) indicator and the units. e.g. 1 new assessment of habitat conservation action needs published.

N/A

Group D: Sustainable Benefits to People, Biodiversity and Climate - Core Darwin Plus Standard Indicators (select one)

If you can report on one of these indicators for your project, please select the indicator from the menu below and report your corresponding result in the text box below.

Unchecked **DPLUS-D01 Hectares of habitat under sustainable management practices.**

Unchecked **DPLUS-D02: Number of people whose disaster/climate resilience has been improved.**

Unchecked **DPLUS-D03: Number of policies with biodiversity provisions that have been enacted or amended.**

Group D Indicator Results

Please enter your results for the (above selected) indicator and the units. e.g. 30 hectares of enriched forest under sustainable management practices

N/A

Section 5 - Project Partnerships, Wider Impacts and Contributions

Project Partnerships

Please describe the engagement among all formal partners involved in this project. Focus on the following:

i) The roles of the various partners in the project, including in planning and decision making and in implementation.

ii) Was the Government of the Territory/Territories involved in this project? If so, how?

iii) Particular achievements, lessons, strengths or challenges with the partnership(s) and how these have been addressed.

iv) Please also describe how key stakeholders and relevant local institutions, local communities and technical specialists, who are not formally partners in the project, have been involved.

The project was led by Island Solutions Inc., with technical and research collaboration from James Cook University (JCU) and active engagement from the Government of Montserrat (GoM), particularly the Departments of Agriculture and Environment. Planning and implementation were jointly developed by Island Solutions and JCU, with JCU contributing expertise in mesophotic reef survey techniques and ROVs. Island Solutions led all logistical coordination, local engagement, and day-to-day delivery of the fieldwork, while JCU researchers supported training, data analysis, and scientific reporting.

The Government of Montserrat was a key formal partner, engaged from the proposal development stage. GoM personnel played a central role in selecting survey sites, aligning project activities with national marine management goals, and participating in data collection and training. The GoM GIS team received hands-on instruction in the use of ROVs and oceanographic instruments, significantly enhancing in-territory capacity.

One of the project's strengths was the collaborative dynamic across institutions. Strong communication and mutual respect enabled flexible adaptation to weather and technical challenges. A key lesson was the value of early and continuous consultation with GoM and stakeholders to ensure relevance of the surveys conducted and support for project activities.

Non-partner stakeholders were also significantly involved in the project, including local youth and community members who attended outreach events. These engagements fostered local ownership, hands-on experiences piloting the ROV in a swimming pool, increased awareness of reef biodiversity and deep reefs, and built interest for future marine conservation efforts.

Wider Impacts and Decision Making

Has the project influenced wider decision-making or in any way helped embed environmental issues into decision-making? If so, please briefly outline how the project has done this and what the changes are.

This project significantly advanced the integration of environmental considerations into decision-making on Montserrat, particularly for deep reef habitats and sustainable fisheries. Previously, there was no systematic data on mesophotic reefs, and environmental planning focused mainly on shallow ecosystems. By generating the first high-resolution, spatially explicit dataset on deeper reef biodiversity and conditions, the project expanded the evidence base available to national policymakers.

The Government of Montserrat's Departments of Environment and Agriculture were actively involved—from survey site selection to data interpretation—which has led to growing interest in applying project outputs to marine spatial planning and fisheries management. Early discussions are already underway to designate ecologically significant areas revealed by ROV surveys and to use temperature and current data to guide seasonal fishing policies and trap placement.

Local capacity has also been strengthened through hands-on training in ROV operation and environmental monitoring, reducing long-term reliance on external consultants and supporting sustainable, evidence-based decision-making.

The project also raised public awareness through outreach events and media, showcasing Montserrat's offshore biodiversity. For many, this was the first time seeing images of deep reefs beyond recreational SCUBA limits—especially significant in a community where many do not swim or dive. This visibility has helped build community support for conservation efforts and greater appreciation of marine ecosystems.

Sustainability and Legacy

Are there any continuing benefits resulting from the project, now that it has closed? What will happen to the project staff and resources now the Darwin Plus Local funding has ceased?

The benefits of this project will continue well beyond the funding period. One of the most significant legacies is the increased local capacity to conduct deep reef monitoring. The ROV, current meters, and supporting equipment remain in Montserrat and are now operated by trained staff from Island Solutions Inc. and the Government of Montserrat's (GoM) marine science team. These tools will be used in ongoing research, conservation planning, and education initiatives.

Project staff remain engaged in environmental work on the island. Island Solutions continues to operate as a local organisation, and several team members are involved in follow-up collaborations, including ongoing data analysis and the development of scientific publications. The collaboration with James Cook University and the Montserrat Volcano Observatory will also support future research and training.

All collected data has been shared with GoM and will inform future marine spatial planning, fisheries policy, and biodiversity monitoring. The project created both the infrastructure and institutional relationships necessary for long-term impact, ensuring that its scientific, educational, and environmental value is sustained and built upon in future initiatives.

Section 6 - Communications & Publicity

Exceptional Outcomes and Achievements

Do you have any excellent or exceptional outcomes or achievements from this project that you would like to showcase? If so, what material can you provide us for communications and publicity to promote Darwin Plus Local and your project?

Please provide a (300 to 400 word) summary and photos/videos/graphics that you are happy for us to use in publicity.

We may use material from this section to promote the achievements of Darwin Plus and the knowledge generated by Darwin Plus projects. This may include publication in the Defra Annual Report, JNCC newsletters and reports relevant to Darwin Plus Local, Darwin Plus promotional material, including to the Biodiversity Challenge Funds social media platforms, or on the Darwin Plus, GOV.UK or jncc.gov.uk websites.

One of the most exceptional outcomes of this project was the successful completion of the first-ever marine surveys of the deep reef habitats located beneath the South Soufrière Hills, specifically east of the pyroclastic flow that emerged from White's River. This area had never been systematically explored due to the rugged underwater topography, strong currents, and perceived risks associated with past volcanic activity. As a result, no biological data previously existed for this portion of Montserrat's marine environment.

Although, this site lies outside of Montserrat's current volcanic exclusion zone, meaning no special permissions were required for access, the location remains challenging to reach due to its remoteness, exposure to weather, and limited accessibility from the coast. The project's success in accessing and surveying the site was due to detailed logistical planning, optimal weather windows, and the use of a lightweight, portable micro-ROV system that could be deployed from a small vessel operating safely nearshore.

During the dives, we collected high-definition video footage of the seabed, capturing images of encrusting sponges, black corals, and other benthic life growing along the steep volcanic slopes. The presence of diverse fauna in this post-pyroclastic zone suggests significant reef recovery and colonisation, offering a unique lens into how volcanic activity shapes deep reef ecosystems over time.

This area now represents an exciting frontier for future research. As a direct result of this project, we are developing a collaboration with staff from the Montserrat Volcano Observatory (MVO) to co-author a publication detailing the ecological and geological context of the surveyed site. Additionally, we are discussing the design of future surveys that will integrate ecological ROV data with MVO's geophysical monitoring to better understand long-term interactions between volcanic activity and marine habitats.

We are able to provide exceptional visual material to support communications and publicity, including high-quality ROV video footage, annotated images, habitat maps, and location coordinates. These outputs are ideal for outreach, education, and public engagement. A short video summary highlighting the dive mission at the South Soufrière Hills site is also in development and can be made available to Darwin Plus Local for promotion.

This work highlights not only the technical capabilities enabled by the project, but also the lasting scientific and institutional partnerships that have emerged as a result.

Photo, video or graphic to be used for publicity and communications.


Please upload at least one relevant and engaging image, video or graphic that you consent to be used alongside the above text in Defra, JNCC or NIRAS communications material.


By uploading these images, videos, or graphics you confirm that:


- i) any people in the images or videos you share have consented to having their photograph taken.
- ii) file name includes your project reference number and you provide the credits and captions for each photo, graphic or video in the text box below.


If you have content that was created in the course of the project, such as explanatory videos or impact graphics for reports, these can also be used for promotional purposes.

****Upload photo(s), video(s), etc. - Max 10 files; Max 20MB per file.**


 [1036-Current meter graphs-Dep 1](#)

 23/07/2025


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 jpg 101.28 KB


 [1036-Bard Presentation](#)


 23/07/2025

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 [1036 ROV presentation](#)


 23/07/2025


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 [Montserrat ROV Exploration- Empowering the Next Generation](#)

 21/07/2025

 18:39:22

 pdf 1.78 MB

Photo, video, and/or graphic captions and credits.

Please provide a short descriptive caption for each photograph, video or graphic, including the location (Territory) and photo or video credit in the box below. Please label each clearly with the file name. e.g. FilenameDPLR1_1922 - photo caption/description - location (territory) - photo credit.

DPLR3\1036-Current meter graphs-Dep1.jpeg - The data gathered by the current meters at each site create a directional and strength visual to help identify impactful currents that can lead to ghost fishing gear - Montserrat - Island Solutions 2025

DPLR3\1036-Bard Presentation.pdf - Drs. Gemma Galbraith and Ben Cresswell shared this presentation with the Bard College marine science class - Montserrat - Island Solutions 2025

DPLR3\1036-ROV presentation.pdf - This presentation gave a "deep dive" into the deep reef monitoring project! - Montserrat - Island Solutions 2025

Montserrat ROV Exploration - Empowering the next generation.pdf - Inspired by their interactive presentation with the Montserrat Girl Guides, Emmy Aston and Dr Gemma Galbraith wrote about the experience - Montserrat - Island Solutions

I agree for the Biodiversity Challenge Funds Secretariat, Administrator, and/or JNCC to publish the content of this section.

Please only select 'no' below, if you really cannot provide any relevant photos, etc, for reasons of sensitivity.

☒ Yes, I agree for the BCFs Secretariat and/or JNCC to publish the content of this section.

Please list any accounts that you would like tagged in online posts here. This can include project pages, partners' pages or individuals' accounts for any of the following platforms: LinkedIn, Facebook, Twitter, or Instagram.

Facebook - Island Solutions Montserrat

Instagram - @islandsolutions.org

Section 7 - Darwin Plus Contacts

Please tick here to confirm that you have read and acknowledge the BCF's Privacy Notice on how contact details will be used and stored and that you have sought agreement from anyone that you are sharing personal details with us on their behalf.

☒ I confirm I have read the Privacy Notice and have consent to share the following contact details

Project Contact Details

Project Contact Name	Andrew Myers
Role within Darwin Plus Project	Co-project leader
Email	
Phone	
Do you need further sections to provide additional contact details?	<input checked="" type="radio"/> No
