

Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

To be completed with reference to the "Project Reporting Information Note"
(<https://dplus.darwininitiative.org.uk/resources/information-notes/>).

It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

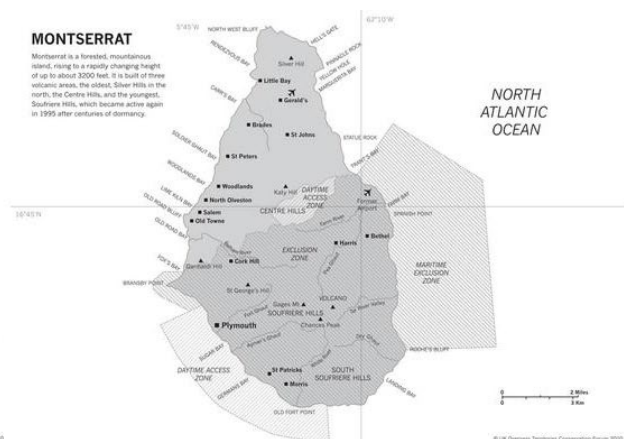
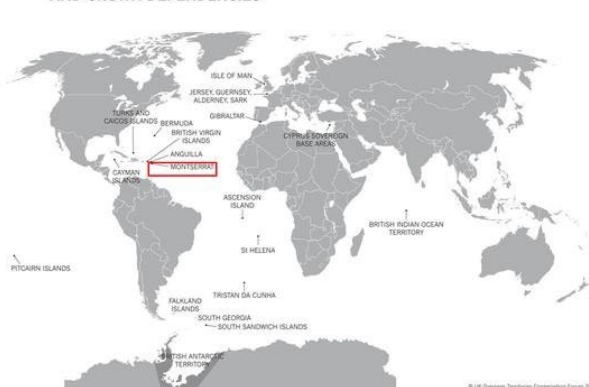
Submission Deadline: 30th April 2022

Darwin Plus Project Information

Project reference	DPLUS106
Project title	A Marine Turtle Action Plan for Montserrat
Territory(ies)	Montserrat (and outputs will be relevant to other Caribbean UKOTs)
Lead partner	University of Exeter (UoE) Government of Montserrat (GoM) Fisheries and Ocean Governance Unit
Project partner(s)	Marine Conservation Society (MCS)
Darwin Plus grant value	£243,489
Start/end dates of project	01 July 2020 – 31 March 2023
Reporting period (e.g. Apr 2021-Mar 2022) and number (e.g. Annual Report 1, 2)	Annual Report 2 April 2021 – March 2022
Project Leader name	Dr Nicola Weber
Project website/blog/social media	www.mcsuk.org/ocean-emergency/marine-protected-areas/recovery-projects/projects-in-uk-overseas-territories/montserrat/ Also updates via organisation and personal accounts on Twitter, Facebook and LinkedIn: @ExeterMarine @mcsuk
Report author(s) and date	Compiled by N Weber April 2022 with input from all project partners

1. Project summary

LOCATIONS OF UK OVERSEAS TERRITORIES AND CROWN DEPENDENCIES



Small, yet regionally important nesting populations of hawksbill and green turtles occur in Montserrat, and there is occasional nesting by leatherback and loggerhead turtles. The island's waters support sea turtle foraging, although the extent to which this occurs is largely unquantified. Work is about to commence on improvements to Montserrat's port facilities as part of a drive to enhance revenue from tourism, which in itself may have implications for adjacent turtle nesting beaches. Additionally, anecdotal evidence of a significant reduction in the use of sea turtles as an extractive resource by the local community suggests that now is an opportune time to implement an evidence-based review of the status and management of these flagship species.

Montserrat has been heavily impacted by natural disasters from extreme weather events to prolonged volcanic activities, all of which may have affected beach profiles, nesting distributions and productivity of marine turtles in as yet unquantified ways. Precautionary management to safeguard turtle nests during the hurricane season is being exercised on an *ad hoc* basis with some clutches being transplanted to a man-made hatchery. This practice has been implemented with no formal training or evaluation of its effectiveness and is in urgent need of review.

In addition to training provided as part of this project, a Marine Turtle Action Plan will be developed with key stakeholders to ensure that the programme is more evidence-based and transparent moving forward, while being suitable for the island's needs. Legislation relating to Montserrat's marine turtles is recognised by the GoM as being outdated and offers little practical protection. With no mention of offences relating to the disturbance of turtles and no upper size limit for legal take. It is prudent that this is reviewed as a matter of urgency and that this is done with the extensive engagement of Montserratians which will be done through the innovative Community Voice Method alongside a community outreach programme.

2. Project stakeholders/partners

The GoM, Fisheries and Ocean Governance Unit are primary stakeholders, responsible for sea turtle monitoring, management and conservation. The project team and proposal were put together after being approached by their Chief Fisheries and Ocean Governance Officer, a well-respected individual both within the government and the local community including fishers (**See GoM Press Release: Annual Report 1**). The GoM team make and implement all day-to-day decisions about the local project activities and the local lead, Mr Alwyn Ponteen consults the UoE team remotely for advice as-and-when it is required via email or Whatsapp. This informal method of communication is what meets local requirements and is also supplemented by more formal whole team meetings every Quarter between GoM, UoE and MCS, for which Minutes are taken and Actions to be Implemented are noted.

The Montserratian community are key stakeholders and with a number of marine management and conservation initiatives currently underway on-island, this project provides an opportunity to use charismatic marine species to further engage the local community on the sustainable use of marine biodiversity, including expanding its eco-tourism draw to contribute to livelihoods and self-sufficiency. After not being able to travel to Montserrat in the first year of the project (2020) due to pandemic-related travel restrictions, the overseas team was pleased to be able to join the GoM team during the 2021 nesting season. This included many opportunities for community engagement as detailed in the following sections and evidence in **Annex 3.2**.

The two UK-based partners (UoE as co-lead and MCS) have an on-going investment in the conservation of biodiversity in the UKOTs both professionally and personally and have all benefited from strengthened relationships this year during the visits to Montserrat to offer expertise and training. They have also been on hand remotely whenever needed, leading the Change Requests, reporting and accounting (at the request of the GoM team) so as to enable the on-island team to progress with their day-to-day environmental monitoring and conservation work.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1:

- 1.1: Mr Jack Wiggins was appointed by the University of Exeter as the Darwin Fellow (DF) for the 3-month fieldwork period between August – October 2021 in Y2. Additionally, Mr John Jeffers - former Fisheries Assistant for the Government of Montserrat - was appointed as the Project Officer (PO) and Mr Gerard Cassell, Montserratian, was appointed as the Assistant Project Officer (APO) by the Government of Montserrat to carry out turtle monitoring between July – November 2021, alongside their permanent Fisheries Data Collectors. These positions for the 2022 Y3 nesting season are currently being recruited for by the Project Leads.
- 1.2: A user friendly Microsoft Access database was created by UoE project leads and sent to the GoM Project Leader. Virtual training was provided on its use in Y1 when international travel was not permitted. During Y2Q4 the appointed DF conducted a face-to-face Microsoft Access database training session with seven GoM personnel. During this training session, the GoM personnel were trained in how to input nesting, tagging and nest productivity assessment data into the Access database. The database is now housed on a GoM server so access to the database will be available on all GoM computers in the Fisheries and Ocean Governance Unit office. Additionally, the DF also trained two GoM personnel (Fisheries Data Collector and Fisheries Intern) how to set up, launch and download data from TinyTag data loggers using the software TinyTag Explorer; this software was installed on a GoM computer in the Fisheries and Ocean Governance Unit Office, using a UoE licence code to enable continued use of TinyTag data loggers. At the beginning of the 2021 nesting season the local Project Leader, PO and Assistant PO were also shown how to safely insert TinyTag data loggers within turtle nests and how to safely remove them. Refresher training for all of this will be provided again in Y3 of the project.
- 1.3: Due to restrictions imposed by the COVID-19 pandemic, the UoE and MCS teams were unable to travel to Montserrat until Y2Q3. The UoE teams arrived on Montserrat in August 2021 (Y2Q3) and worked alongside the local PL and PO to conduct face-to-face training sessions with the Assistant PO, Fisheries Data Collectors, and volunteers to consolidate correct survey methodologies and ensure the appropriate data were being recorded. Again, refresher and consolidation training will be provided in Y3.
- 1.4: Following local COVID-19 guidelines, during Y2Q3/Q4 the UoE team along with the GoM team conducted a full turtle nesting survey which consisted of both day and night surveys. Day surveys were systematically performed on all accessible beaches around the island (n = 13) and night surveys were conducted on more easily accessible beaches (n = 6) throughout the turtle nesting season. All data collected were inputted into the Access database by the DF and GoM personnel during the Access Database training session in Y2Q4.
- 1.5: All nests translocated into the hatchery facility by the PO have been and continue to be monitored daily by the local PL, PO and GoM team. The GoM team have been trained by the DF in nest excavations and productivity assessments throughout Y2Q3/Q4. Therefore, the GoM team are continuing to monitor all nests within the hatchery facility and will continue to perform nest productivity assessments for all hatchery nests for the rest of Y2 to enable an evaluation of the hatchery facility for Y2. All data will be inputted into the Access database and a full assessment of the hatchery facility will be conducted at the end of Y2 to inform plans for the Y3 season.
- 1.6: All nesting turtles encountered during nocturnal surveys were marked by the field team with two metal flipper tags on the trailing edge of the fore flippers, and a passive integrated transponder (PIT) was inserted into the right shoulder muscle of individuals to enable long-term population studies. A total of 10 nesting females (9 green and 1 hawksbill) were also fitted with remote tracking devices to identify key inter-nesting habitats and regional migratory connectivity (tracks can be viewed here: <https://my.wildlifecomputers.com/data/map/?id=61196a7b2c72b03780432020>). See also **Annex 3.3** for a summary. The results of this study are currently being analysed and will be submitted for peer-reviewed publication (with all involved in the project and deployment of these tags invited to be co-authors). Additionally, with the foraging locations of these turtles identified within the Caribbean region, emails have been sent by

MCS, UoE and GoM to known contacts in the different territories which has and will prompt more collaboration between the territories for marine turtle research and conservation.

- 1.7: Planned for Y3 nesting season, to be carried out by UoE PGRA Miguel Varela, accompanied by Prof. Brendan Godley. Field dates for this are now confirmed as 6th June 2022 – 17th June 2022.
- 1.8: A preliminary assessment of the mortality of turtle nests related to inundation, predation and illegal take has been carried out throughout Y2. Results of the preliminary assessment are currently being evaluated by the UoE and GoM teams to inform effective protective measures for the 2022 nesting season will be agreed and implemented during Y3 with the aim of reducing nest mortality caused by inundation, predation, and poaching by at least 50%. The implemented measures will then be re-evaluated and refined, if necessary, at the end of Y3 and incorporated into the Species Action Plan to ensure future practices align with international best practice and are consistent with local capacity and management needs.
- 1.9: A total of 13 local individuals were trained in marine turtle research and monitoring methods through the DF conducting numerous daytime and night-time face-to-face training sessions during Y2Q3/Q4. Training sessions focused on training the GoM team and volunteers on how to identify different species using a variety of visual identification methods, how to conduct nesting surveys, how to PIT and flipper tag nesting females, how to take morphological measurements, and how to conduct nest excavations and productivity assessments. Five of the trained individuals were staff members of the GoM, two individuals were GoM interns from the Department of Environment and Department of Agriculture, four individuals were local volunteers, and two individuals were local staff members employed on the Darwin Plus project: Building Capacity to make Montserrat a Mountain Chicken Refuge (DPLUS105). Refresher training for these individuals will be offered by the DF in Y3 as well as general training for any other interested individuals.

Output 2:

- 2.1: Planned for end of Y3 and to be informed by the 2022 Y3 nesting season.
- 2.2: During Y2Q3 a robust population monitoring protocol was developed by the UoE Project Leads and the DF and agreed by the local PL and PO. The Government of Montserrat Director of Agriculture was also sent a copy of the monitoring schedule. The monitoring protocol was implemented at the beginning of the 2021 nesting season and was followed by the local PL, PO and GoM team until the end of Y2. The monitoring protocols are currently being evaluated by the GoM and UoE teams and refined prior to the commencement of Y3. If necessary, monitoring protocols will be further adjusted and refined during Y3 so that they are consistent with local capacity and management needs. To ensure ease of data collection for the GoM team, the DF and UoE Project Leads created new data recording sheets for the GoM team to utilize during Y2 and Y3 (see **Annex 3.1**). These data sheets will also be evaluated and refined, if necessary, for future monitoring.
- 2.3: Following the completion of Y2, a thorough evaluation of the methods implemented by the UoE, MCS and GoM teams in Y2 is currently being undertaken and any necessary adaptations will be implemented and incorporated into Y3 and then following that, evaluated once again and built into an evidence-based and SMART-aligned Marine Turtle SAP for Montserrat.

Output 3:

- 3.1: Due to the COVID-19 restrictions and regulations on group sizes and gatherings during the period the UoE and MCS teams were in Montserrat, community engagement meetings were limited. However, following COVID-19 protocols during Y2Q3 the UoE and MCS teams conducted a face-to-face community meeting with members of the

Montserrat Rotary Club (**see Annex 3.2**). During this community engagement event, the MCS team explained the social science aspects of the project detailing how the community voice method will be implemented and delivered on island and how findings will be integrated into the SAP. The UoE team explained the biological aspects of the project, providing information on how the GoM team and volunteers would be trained and incorporated into the project, how diurnal and nocturnal surveys were going to be conducted, how and why remote tracking devices were being deployed, how the data collected during the project was going to be inputted, stored, and used for future publications, and how local people could get involved with the project. The UoE and MCS teams plan to conduct further community engagement events in Y3 to explain project needs, aims and current findings to a variety of local communities and stakeholders; such engagement events will be organised during Y3 to comply with COVID-19 protocols in place at the time.

- 3.2: Prior to the research expedition in Y2/Q3, a list was put together of key informants that the MCS team would like to interview to ensure an even demographic spread. The names of potential interviewees were then put forward by all members of the team and from interactions with Montserratians when in the field. Eight semi-structured interviews were conducted with these key informants to evaluate levels of current take of sea turtles, their eggs, socio-economic and consumptive aspects, along with trends in nesting and in-water populations. The results of these interviews informed 3.3 and will be used as a baseline for 3.7 the end-of-project attitudinal surveys and resulting analyses (**see Annex 3.2** and the protocol attached to the email with this report).
- 3.3: In Y2/Q3, as part of the Community Voice Method, 28 interviews were successfully conducted that included 32 participants and just over 30 hours of interview data. Interviewees were sensitively asked about attitudes towards turtles and their conservation, marine management, conservation and life on Montserrat more generally. A balanced gender and age spread was achieved amongst the interviewees (**see Annex 3.2** and the protocol attached to the email with this report). A clear theme arising from the CVM interview data is that while the scale of the turtle fishery is seen as a fraction of its historical past, it still has social and cultural importance for sections of the Montserratian community and warrants community deliberation in determining conservation measures. The MCS Community Voice Coordinator (Sue Ranger, MCS) and team have processed these files, extracting audio and transcribed the interviews. A high-level data summary using NVivo coding and analysis has been conducted to inform the film narrative and production of the CVM film has begun.
- 3.4: Following an approved Change Request, this is now planned for Y3. The visit dates have been confirmed for the 23rd July – 9th August 2022 and planning has begun for this, including the booking of appropriate venues.
- 3.5: Following an approved Change Request, this is now planned for Y3. The visit dates have been confirmed for the 23rd July – 9th August 2022.
- 3.6: Following an approved Change Request, this is now planned for Y3.
- 3.7: Following an approved Change Request, this is now planned for Y3.
- 3.8: Communication between all team members remains strong with regular whole team meetings, part team meetings for specific/ specialised queries and a regularly used Whatsapp group to share information and brief updates quickly and effectively.

Output 4:

- 4.1: The design and creation of the signage boards continues as it was recognised that there was a need for more high-quality images for inclusion and the need for more specialised graphic design. Images were taken by the team during the field expedition and MCS are able to offer some time of their in-house graphic designer to help complete this so that the boards can be installed in Y3.

- 4.2: Planned for Y3. This will be carried out by Prof. Brendan Godley during the June 2022 visit with supplemental engagement on this carried out by Dr Weber during an August visit.
- 4.3: The UoE, GoM and MCS teams conducted an educational workshop at the Davy Hill Summer School during Y2Q3 (**see Annex 3.2**). The workshop included a talk on sea turtle biology and ecology, a Q&A session with the students, and a practical hands-on component where students had the chance to interact with the field equipment used for turtle monitoring and practiced attaching flipper tags to pretend turtle flippers. Five radio interviews which included members from the UoE, MCS and GoM were also conducted during Y2Q3. Two of the interviews were broadcasted live on Radio Montserrat on the MAHLE Vibes radio show, and the other was recorded online with local media company 664 Media and broadcasted at a later date. All interviews discussed in detail the work the GoM, UoE and MCS teams were conducting on Montserrat and helped make the outputs of the project and current findings widely available to the local community. Engagement with the local community during the interviews was high with many locals joining the live radio interviews via mobile phones.

3.2 Progress towards project Outputs

Output 1: An updated, island-wide status assessment of marine turtle nesting activity on Montserrat over 3 years

Work towards this output is progressing in accordance with the revised timeframe. We had originally planned to carry out a full turtle nesting survey and associated research work in Y1 of the project, however movement restrictions because of the COVID-19 prevented this. Some monitoring data were collected by GoM in Y1 with remote support from UK-based partners. We have extended all aspects of the project into a third year (2022/2023) at no additional cost (Change Approved). This will ensure that there are two turtle nesting seasons (June – November) during which UK-based project partners are able to visit Montserrat and work with GoM to deliver project outputs, as originally planned. The Research Assistant post, originally concentrated in Y1, will be split across Y2 and Y3 to ensure local capacity for monitoring and research in both years. Given that travel disruption and local quarantine restrictions on Montserrat extended into the first half of Y2, the UoE team undertook a focused visit during the Y2 turtle nesting season (July-August 2021; Q2Y2) in order to deploy telemetry tags on turtles and provide initial training on marine turtle monitoring, research and data management techniques for GoM staff (both originally planned for Y1). Robust monitoring data on turtle nesting activities were collected for the 2021 nesting season by UoE and GoM and inputted into the database (**Annex 3.1**). Initial analyses of the data have been completed and will be presented to on-island stakeholders at the start of the 2022 nesting season.

An extended and more intense field season has been planned for Y3 with the RA on Montserrat 6th June – 12th November 2022 and then additional visits from Dr S Weber in June 2022 to present last years' findings to all stakeholders and ensure that all team members are satisfied with the monitoring plans for the year. Prof. Brendan Godley and a PGRA from the UoE will visit 6th – 17th June to hold a workshop, further stakeholder engagement and the collection of data through the use of drones for beach profiling. The MCS team will visit 23rd July – 9th August 2022 for the Community Voice Method workshops and then Dr S Weber and Dr N Weber will be on Montserrat 20th August – 3rd September to evaluate how the monitoring programme is progressing and hold meetings with stakeholders to inform the actions in the SAP and provide training as required and hold educational events for summer schools. The previously revised indicators for this Output remain the most appropriate.

Output 2: An updated sea turtle monitoring and management action plan

The research outputs (in Output 1) that were carried out in Y2 have provided some important insights into Montserrat's marine turtles, such as the fact that the population is likely to be considerably larger than first thought, and the identification of their foraging habitats for the first time, that will enable the development of the Species Action Plan. The chance to physically work with the GoM team also provides realistic insights into what can feasibly be achieved given the

capacity and resources on Montserrat. The project team have made some refinements to the turtle monitoring and data collection methods carried out by the GoM team (including the revised data sheets; **see Annex 3.1**) and there is an improved appreciation of the need for reliable data collection and storage. The long-term data collected, however, are incomplete and as acknowledged by the local Project Leader, in order for new survey methodology and data management protocols to be fully embedded it is necessary for the overseas team to have a physical presence on the island. This worked well in Y2 and will be further built upon in Y3, with as much engagement with local stakeholders as possible so that the monitoring programme will be sustained through an appropriate Species Action Plan after the life of this project. With the approved extension in the project timeline, we still expect to achieve this Output in full by the end of the project and the previously revised indicators remain the most appropriate.

Output 3: Review and make recommendations to update the current legislation concerning the protection of marine turtles

All aspects of this Output were moved from Y1 to Y2, as it was important that this level of engagement was carried out face-to-face and not remotely in order to be a success. As detailed in 3.1, all Community Voice and Key Informant interviews were carried out and there was a high level of engagement (see <https://www.mcsuk.org/news/the-people-and-places-of-montserrat/>). A wide and representative section of the community were sampled (see **Annex 3.2**). This has resulted in improved understanding of the nature of the turtle fishery and the diverse values Montserratians hold towards turtles, while also building strong community links that will foster further progress in realising this Output. The MCS team will visit Montserrat again 23rd July – 9th August 2022 for the Community Voice Method workshops and to complete the remainder of the face-to-face Output activities and then the analyses and reports that follow. We still expect to achieve this Output by the end of the project and the previously revised indicators remain the most appropriate.

Output 4: Update signage at beaches relating to the disturbance of nesting turtles and methods of best practice for viewing turtles and launch a public outreach campaign to improve public understanding and appreciation of the programme.

In order to move forward with sign creation, MCS's in-house graphic design team are donating some time to this and they will be printed on Montserrat to be in keeping with those quite recently erected at some major nesting beaches (funded by the Governor of Montserrat's office while this grant was being considered). This will mean that all beaches with turtle nesting activity have a sign up to educate about the turtles and responsible viewing practices. Radio appearances and school visits were undertaken in an *ad hoc* manner in Y1 (influenced by COVID-19 movement restrictions), but very well received. This was significantly built upon in Y2 when the team were on-island and in addition to the Community Voice Method interviews there were multiple radio appearances and presentations at organised meetings detailed in 3.1. The naming of the tagged turtles by people on Montserrat was particularly engaging and the social media updates about this were not just led by the project team, but also other interested parties on Montserrat (**see Annex 3.3**). Much progress was made with this Output in Y2 which will be further expanded in Y3 and with the revised indicators for this Output which remain the most appropriate, we still expect to achieve it in full by the end of the project.

3.3 Progress towards the project Outcome

With the approved no-cost Change Request to extend the project to March 2023 rather than March 2022 to incorporate two turtle nesting seasons and provide the additional time needed to carry out all activities, and the successful completion of the intended Outputs for Y2 as evidenced above, we feel that the project remains on track to meet the intended Outcome.

3.4 Monitoring of assumptions

As detailed in the individual assumptions, the project relies on a good working relationship being fostered with the GoM team to facilitate data collection and the design and implementation of a suitable Marine Turtle SAP for Montserrat, as well as buy-in and engagement from the local community to make the project a success. The methods being used, have been proven to be effective in similar circumstances in the past, the partners all have an established working relationship and the project is being driven by the Territory and its needs so we are confident that the outputs will be achieved. Some monitoring took place in Y1 despite the pandemic conditions, this was followed up by an intense field season in Y2 and then this will be further complemented by a longer field season in Y3 where monitoring work and networks can be further expanded.

Assumptions 1.1 – 1.8 (detailed in Annex 2) relate firstly to whether suitable candidates will apply and be selected for the local and overseas positions. The team were fortunate enough to be able to contract a former employee of the Department of the Environment for the Government of Montserrat (now retired) who has had extensive involvement in turtle monitoring in the past, to carry out some activities in Y1 and trial data recording methods for Y2 and into the future. The same local PO was contracted in Y2 and it is envisaged also for Y3. An additional local data collector was recruited in Y2 and there will be a Government recruitment process for this position for Y3 along with effort to recruit 2 Youth Trainees who will receive a stipend. We have recruited a capable DF for Y2 and Y3 data collection who is now focusing his MRes on the data collected from Montserrat. Secondly, we rely on GoM staff engaging with the use of the database and more evidence-based data collection methods, which did to some extent in Y1 with remote training and then fully engaged with the face-to-face training in Y2. There will be refresher training provided in Y3 with an emphasis on the need for continued robust data collection and storage. With the research work for Output 1, there was the added assumption regarding international travel following the Covid-19 pandemic, but that has now resumed and we do not anticipate that the situation will change.

With Output 2, we have to assume that the GoM will adopt the final SAP and take it forward. As all elements of this project have been designed at the request of the GoM team and designed to foster local ownership of the project throughout then we find it highly unlikely that they will not engage with the recommendations.

The assumptions for Output 3 still hold true, that in order for this to be effective, local stakeholders need to agree to participate. Given the level of engagement with the first stages of the Community Voice Method as detailed in 3.1, we fully expect this to be repeated in Y3 and further enhanced after the community showings of the CVM film which MCS have found to be the case in the past through their experiences in Turks and Caicos Islands with CVM in 2010, and since then in the UK. As with Output 2, we assume that the GoM will act on the recommendations as they have expressed a need for reformed fisheries legislation and support a participatory democracy approach to developing new regulations.

Finally, with Output 4, we still assume that information signs will be well received at local marine beauty spots and that residents and visitors read them to find out more and that those working in the tourism industry will engage with the project. PLs and project partners have worked with some of these individuals before and have experienced their passion for Montserrat's natural history and its preservation so are confident that they will engage. Montserratians are resilient people who are still feeling the effects of the island's volcanic activity but are working hard to secure their livelihoods.

4. Project support to environmental and/or climate outcomes in the UKOTs

Senior decision makers within the GoM will benefit from the availability of robust data collected during the 2021 and 2022 turtle nesting seasons to inform decisions relating to e.g. the planned port construction for which an Environmental Impact Assessment has identified turtles as a species that may be significantly impacted, and to strengthen marine-resource legislation to bring it in-line with internationally recognised standards and meet their obligations under Multilateral Agreements (MLA). This point was raised with Governor Sarah Tucker in a pre-deployment meeting between her and the UoE team and she made a note to send details for the Environmental Impact Assessment for the port development. This has been highlighted recently in a peer-reviewed publication with no affiliation to this current project (Claire Saladin [2020] International Environmental Law and Sea Turtles: Anatomy of the Legal Framework and Trade of Sea Turtles in the Lesser Antilles, *Journal of International Wildlife Law & Policy*, 23:4, 301-333) that identified several limitations with Montserrat's legislation relating to the take and protection of marine turtles in line with what has been committed under MLAs ratified by the UK and extended to some of the UKOTs.

The people of Montserrat will gain by engaging in a democratic process that acknowledges and enables their opinions to shape draft legislative recommendations; the GoM and marine stakeholders will also benefit more broadly through exposure to the Community Voice Method, a transferable approach that may be used to tackle Montserrat's other priority environmental issues. Locals and visitors to Montserrat will benefit from having more 'turtle tour' options available to them to witness this inspiring and charismatic marine species.

5. OPTIONAL: Consideration of gender equality issues

We are committed to ensuring our community engagement aspects are gender-balanced and address barriers to participation as much as possible (see **Annex 3.2** for those individuals and their gender that were interviewed as part of the CVM). In the CVM, we committed to strictly adhere to 50:50 gender-balanced sampling which is what we achieved. Looking to Y3 and consideration of community-related activities including the CVM workshops, we will ensure schedules are flexible to accommodate times, locations, meeting structures, language and facilitation-styles, as well as group composition appropriate for gender-representative participation.

6. Monitoring and evaluation

The M&E plan remains unchanged, involving at least quarterly formal meetings between project partners to monitor progress, identify milestones that have been missed (or are likely to be missed) and adapt accordingly. These are also supplemented by informal contacts between the GoM lead and UoE and/ or MCS depending on the work package, as-and-when needed to help facilitate continual progress. The effectiveness of this approach was tested during Y1 in responding to major disruption caused by the COVID-19 pandemic and has resulted in a revised implementation timetable and budget following three approved Change Requests that should allow the project to deliver all planned outputs by 2023. M&E has focussed on monitoring progress against individual Outputs as the contribution of each of these to achieving the overall Outcome is explicit in the project design. Following the Y2 nesting season, a 'Priorities and Recommendations' document was put together to guide the design and then implementation of the Y3 nesting season, which is currently being planned.

7. Lessons learnt

The successful completion of some of the Outputs in Y2 were very much dependent on the support that the overseas team received from on-island Project Lead and members of the community including media/ public figures Vernaire Bass and Sharlene Lindsay who were all instrumental in facilitating introductions to community members and helping to organise CVM interviews. We would highly recommend to others doing similar projects to make use of local media outlets (radio and social media in particular) to help with the promotion of the project and

the dissemination of its results (see **Annex 3.3**). The whole Community Voice Method process has really highlighted to all involved, the profound insights that can be gained from community engagement.

8. Actions taken in response to previous reviews (if applicable)

No specific actions were advised in the review of Annual Report 1.

9. Other comments on progress not covered elsewhere

As a result of engagement with local stakeholders during the 2021 visit to Montserrat, two grant proposals have been submitted by the project team (led by MCS) to develop in-water citizen science turtle/elasmobranch species/habitat surveys with on-island marine education organisation, AQUA Montserrat (second proposal outcome pending). Additionally, MCS with support from the project partners has submitted a Darwin Fellowship for Veta Wade of AQUA Montserrat to study Marine Vertebrate Ecology and Conservation at the University of Exeter, which has been successful in receiving funding. This highlights the power of partnership in projects of this type.

10. Sustainability and legacy

The GoM team continue to carry out turtle monitoring as they have done in the past and will in the future as part of their commitments in the local Fisheries, Aquaculture and Oceans Resources Management Plan. However, many elements of this work are based on locally perceived needs and best practice, some of which stem from training provided over a decade ago and are not aligned with international standards of data collection and management for evidence-based decision making. During the two years of this current project, awareness of the need for data collection and management alongside the invaluable practical conservation work currently taking place on the Island has improved. Thus, the exit strategy remains the same; the creation of a self-sustaining monitoring protocol to facilitate the long-term continuation of the project after the 2021 and 2022 turtles nesting seasons that will have seen an injection of capacity and energy into marine turtle monitoring and evidence-based conservation on Montserrat.

11. Darwin identity

All tangible outputs from the project clearly state the source of the funding from press releases, social media and blog posts (e.g. <https://blogs.exeter.ac.uk/exetermarine/2021/09/27/tracking-the-movements-of-montserrats-marine-turtles/> and <https://www.mcsuk.org/news/freedom-heartbreak-and-the-ancient-forces-of-montserrat/>), radio appearances to the Darwin logo being displayed on capital equipment where possible e.g. the beach signs (in preparation), leaflets (in preparation) and Community Voice Film (in preparation). The newly launched MCS website also has a [bespoke webpage](#) for this project, highlighting information regarding the Darwin Initiative and associated logo. There is generally a good understanding on Montserrat of the Darwin Initiative and the projects that they support.

12. Impact of COVID-19 on project delivery

The COVID-19 pandemic, which affected the entire first year of the project had wide-ranging and unforeseen impacts on our ability to deliver many of our planned activities and outputs. However, after a successful 2021 nesting season and all of the activities planned for 2022, there should not be an impact on project delivery as a whole. Most of the project staff are not taking a wage from the budget in 2022/2023 to be able to facilitate this addition year of the project.

13. Safeguarding

Please tick this box if any safeguarding violations have occurred during this financial year.

If you have ticked the box, please ensure these are reported to ODA.safeguarding@defra.gov.uk as indicated in the T&Cs.

14. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2021 – 31 March 2022)

Project spend (indicative) since last Annual Report	2021/22 Grant (£)	2021/22 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	████████	████████	█	
Consultancy costs	██████	██████	█	
Overhead Costs	████████	████████	█	
Travel and subsistence	████████	████████	██	
Operating Costs	████████	████████	██	
Capital items (see below)	████████	████████	██	Underspend on satellite time for the telemetry tags – difficult to estimate exact cost, so a best case scenario figure was provided. Also, 2 finished transmitting sooner than budgeted for. Request to transfer this to Y3 to purchase and deploy one additional satellite tag.
Monitoring & Evaluation (M&E)	██████	██████	█	
Others (see below)	████████	████████	██	Small underspend
TOTAL	████████	████████		

15. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

A particular achievement of the DPLUS106 project (A Marine Turtle Action Plan for Montserrat) in 2021 has been the deployment of 10 satellite telemetry devices on green and hawksbill turtles nesting on Montserrat. This has led to significant engagement from the community who had the opportunity to 'name' these turtles and then follow their movements. The data have shown that these turtles have travelled to their foraging grounds which include Antigua and Barbuda, Guadeloupe, Dominica, St Croix and Puerto Rico. Their journeys highlight just how connected the Caribbean marine turtle populations are and it is an international responsibility to help to protect them.

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the correct template (checking fund, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	Y
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Y
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	NA
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Y
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	NA
Have you involved your partners in preparation of the report and named the main contributors	Y
Have you completed the Project Expenditure table fully?	Y
Do not include claim forms or other communications with this report.	