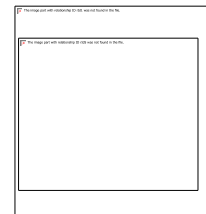




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## Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

To be completed with reference to the “Writing a Darwin/IWT Report” Information Note: (<https://dplus.darwininitiative.org.uk/resources/reporting-forms-change-request-forms-and-terms-and-conditions/>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

**Submission Deadline: 30<sup>th</sup> April 2021**

### Darwin Plus Project Information

Project reference	DPLUS099
Project title	Fragmented cloud forest habitat rehabilitation through innovative invasive plant management
Territory(ies)	St Helena, South Atlantic Ocean
Lead organisation	Environment Natural Resources & Planning Directorate, St. Helena Government
Partner institutions	
Grant value	£294,309.00
Start/end dates of project	01/04/19-31/03/22
Reporting period (e.g. Apr 2020-Mar 2021) and number (e.g. Annual Report 1, 2)	April 2020-March 2021 Annual Report 2
Project Leader name	Darren Duncan
Project website/blog/social media	
Report author(s) and date	Rebecca Cairns-Wicks & Vanessa Thomas-Williams

### 1. Project summary

The project will expand fragments of important native biodiversity and link these via native vegetation corridors through managing invasive vegetation. Knowledge gained during this process will enhance our understanding of the applied ecology of the important endemic biodiversity hotspots and better quantify invasive vegetation management required to conserve St Helena’s endemic fauna and flora sustainably.

### 2. Project stakeholders/partners

The project has no formal partners. Stakeholder engagement and new partnerships have grown and developed through this year through a combination of the activities arising from within the DPLUS099, identified training needs and ecological concerns and synergies and evolving relationships stemming from other existing and emerging projects.

Key developments include:

1. Membership of the Peaks Project Development Group to produce a costed three-year Implementation Plan (2021-2024) for the Peaks Management Plan.

Current and former project managers have been fully engaged in the development of the implementation plan for the Peaks Management Plan <https://www.sainthelena.gov.sh/wp->

<content/uploads/2021/11/Restoring-St-Helenas-Internationally-Important-Cloud-Forest-for-Water-Security-Wildlife-2021-2026.pdf> has been developed through a highly collaborative process. Current membership of this group includes:

Chief Environmental Officer, Isabel Peters, Vanessa Thomas-Williams (Environmental Management Division), Martina Peters (Saint Helena National Trust), Rebecca Cairns-Wicks (St Helena Research Institute), Lawrence Muranganwa (Connect Saint Helena Ltd), Melissa Fowler (St Helena Tourism) and Stephen Coates (Education Directorate) and Sarah Havery (RSPB). This key stakeholder group is the driving force for securing stakeholder engagement and partnership development for the cloud forest.

Developmental progress in invasive species management and nursery production through the current DPLUS099 and previous DPLUS029 provide the foundations for this ambitious next phase of ecological restoration and enable scaling-up of activities.

<https://www.sainthelena.gov.sh/2020/news/peaks-project-development-group-holds-public-information-session/> (attended by members of the Peaks team (Terrestrial Conservation Core Habitats team and the DPLUS099 project team) – see green shirts)

2. Valuable relationships and engagement have been fostered through engaging other organisations to deliver training.

- Notably with the SHG GIS Manager, Devlin Yon and his team. Training staff in using GIS and use of both GPS and smart phone to record and locate trees and worksites. Devlin has also provided support in securing all the spatial data collected under the project and mapping it.
- Fire & Rescue Services – training led by Alan Thomas, Deputy Fire Chief to train 7 staff in working with ropes. Having additional trained personnel on island provides a wider pool of people for the Fire & Rescue Services to call on in the event of an emergency.

<https://www.sainthelena.gov.sh/2021/news/dplus099-project-and-environmental-conservation-training/>

3. In May 2019, it came to light that different *Carex* ‘varieties’ had been planted out in mixed stands across the Peaks. Assistance from Professor Quentin Cronk at the University of British Columbia and Dr Alan Gray at the UKCEH was sought to conduct genetic analysis on Peak grass samples collected. Quentin and Alan have worked for many years with the Project Manager to study the population genetics of the endemic species in order to inform best practise for conservation management. This led to Cassandra Bradshaw working on the phylogenetics of *Carex diana* for her undergraduate thesis at UBC. Thesis expected April 2021. Refer to Appendix 1

4. Technical expertise was sought from Julie Balchin, Biosecurity Officer, ENRP to help develop the biosecurity protocols for the peaks teams after concern was raised about the health of the cabbage trees and in particular the number of dying black cabbage trees. Julie attended a group workshop to reflect on biosecurity and phyto-sanitation with respect to work activities and considering their work in relation to the SHG biosecurity policy (<https://www.sainthelena.gov.sh/wp-content/uploads/2013/09/Biosecurity-for-visitors-to-St-Helena-AIR-Nov16.pdf> ). Appendix 2 A report on tree disease and biosecurity protocols was produced as a result of the workshop.

5. Technical expertise was sought from plant pathogens specialists to help the island identify putative tree disease in the cabbage trees. By reaching out initially to Nicola Spence, Chief Plant Health Officer Defra & President of the British Society for Plant Pathology we were put in contact with Professor Rob Jackson at the Birmingham Institute for Forest Research (BIFoR) and Phil Taylor at CABI. With their support we proceeded to develop a PhD proposal with Rob Jackson and Norbert Maczey (CABI) on tree diseases in cabbage trees <https://www.findaphd.com/phds/project/a-study-of-tree-disease-on-the-island-of-st-helena/?p128572> and a partnership project evolved with CABI (lead partner), ENRP, SHRI and BIFoR to study the pathogens affecting St Helena’s biodiversity and food security, submitted to the Darwin Initiative for funding.

6. Engagement with the St Helena National Trust on DPLUS104 with respect to establishing monitoring sites for European wasp. Vanessa Thomas-Williams is a member of the project steering group. The European wasp is found primarily in the uplands of St Helena and nests have been identified in the cloud forest. The wasps are predators of native invertebrates and the project seeks to identify control and eradication methods.
7. Engagement with Ascension Island Conservation. At a meeting between Jolene Sim Conservation Team Leader & Endemic Plant Nursery Officer Ascension Conservation whilst she was on home leave in December 2020 opportunities for engagement and exchange were discussed. Due to COVID-19 and existing commitments (e.g EIA for airport project and projects) there would not be spare capacity within Ascension Conservation to engage in exchange visits for the duration of this project or attend workshops. We agreed with the principle of exchange and to look to future opportunities for exchange at a time more convenient to Ascension Conservation. To keep open opportunity for future engagement we proposed a change request to organise one online workshop in Year 3 that could not only include Ascension Island Conservation but be open to a wider international audience with an interest in cloud forests and invasive non-native species control.

### **3. Project progress**

#### **3.1 Progress in carrying out project Activities**

##### **1.3 St Helena staff trained in survey techniques, applied ecology and new clearance protocols**

Training in this year focused on developing skills in GPS and QGIS, safe use of drones to aid aerial survey work, safe use of pesticides and working with ropes. (Appendix 3 - published article) and biosecurity following training needs identified and reported in Half Year Report, October 2020.

Devlin Yon, GIS Manager led the training in GPS which was given to 20 staff (Appendix 4)

Devlin Yon led a second training session using a smart phone and QGIS to give training in recording locations for surveying. The phone which the team now keep with them has the fragment map loaded on it, so that they can locate their position to work at different sites as well as add to records. (Appendix 4).

James Fantom delivered training in the safe use of pesticides to 9 staff. Certificates of attendance were awarded.

Training in the safe use of ropes was conducted by Alan Thomas, Deputy Chief Fire Officer but could not be completed due to illness. The training will resume once Alan is back to work.

Through shared team meetings and regular meetings with the Project Manager, Ross Henry and Graham Leo (EMD Habitat, team leader), the clearance protocols established within the team during year 1 of the project have been discussed at length, are better understood and through establishing a shared work programme becoming adopted by the EMD team (Appendix 5)

Graham Leo and Perry Leo have been registered on the City and Guilds Course. As NVQ Assessors Vanessa Thomas-Williams and Rebecca Cairns-Wicks have taken on the two candidates for the City and Guilds Level 2 Diploma in work based environmental conservation to complement the training programme delivered across the project. Graham is the Peaks Habitats team leader and Perry is the Nursery Officer on the Peaks. The training is tailored to the needs of each candidate so that they can focus on developing competency in areas specifically related to their roles. Units covered include: 238 – Preparing the ground for seeding and planting; 239 – Establishing plants and or seeds in soil; 241 – Maintaining plants outdoors; 270 – Safe use of pesticides; 281 – Carry out habitat management work to maintain suitable conditions for wetlands; 296 – Give customers a positive impression of yourself and your organisation.

##### **1.4 St Helena staff trained in nursery scheduling and managing production workflow**

The nursery staff (Nursery Officer & RSPB cloud forest nursery officer) have worked with the project manager to improve cultural conditions in the nursery and manage production. Areas of specific focus have been on:

1) Implementation of standardised procedures - ensuring genetic conservation through propagation – reinforcement of principles and protocols with all peaks staff and worked through with the removal of Diana's peak grass seedlings from the nursery (due to uncertainty of provenance/potential hybridisation) and decision to re-start collection of vegetative cuttings from wild plants of known provenance to establish a new field gene bank for Diana's peak grass and lack of seed for sowing (seed would need to be collected when wild plants of known provenance are seeding – December). (Appendix 1 – Peaks grass report).

Removal of barn grass from planting sites and having to re-start collections of known provenance has had a big impact on production schedules.

2) Implementation of standardised procedures - ensuring genetic conservation through seed collecting protocols – reinforced by discussing at team meetings and through practical action and ensuring all staff across EMD use the same protocols (Appendix 6 – EMD seed collecting protocol).

3) Pest control - A significant outbreak of red spider that was found to be infecting all species and plants in the nursery. Identification of mite infestation is not easy – the mites are so tiny that it is impossible to see with the naked eye and it is difficult to identify the source of the symptoms – curled leaves and distorted apical meristems. Control methods in use in the nursery were not effective. After reviewing plant status it was agreed that some plants would be destroyed (dogwood, due to their poor health and age) and that the ANRD spray team would be brought in to treat all plants with appropriate pesticide. The nursery team had to systematically work through the whole nursery, including benches, fixtures and fittings and plantings within and close to the nursery (notably banks of large bellflower, false gumwood) to treat and eradicate the mites. This has impacted nursery production and planting in this reporting period.

After investigation it was found that infected large bellflowers had been reintroduced to wild sites. No planting of nursery grown stock was permitted until treatment of the infestation had been carried out and plants were clean. The nursery team are now more confident about identification and treatment.

New chemical control methods have been introduced – neem oil and diatomaceous earth. The diatomaceous earth is proving particularly effective against mite (broadmite and red spider mite).

4) Nursery scheduling - Project management team are also concerned that dogwoods, whitewoods and he-cabbages were exhibiting symptoms of pathogenic infection. Pests & pathogens are more likely to affect stressed plants and possible causes for stress in the nursery arise from plants staying too long in the nursery and exhausting nutrient supplies and drought or waterlogging. It is likely that in this case the plants had been left too long in the nursery before planting and this may have contributed. The project manager has brought in new nursery scheduling procedures, which are used in the Scotland nursery but have not been implemented at the peaks before now, and has been working with the nursery officer and Senior Conservation Technicians (Ross Henry and Graham Leo – EMD habitats team lead) to start implementing the new process.

Nursery production for the Peaks is now being conducted across both the Peaks and Scotland nurseries with the production of redwoods and false gumwoods now centred at the Scotland nursery. Other species grown in the Scotland nursery include large bellflower; she cabbage; dogwood and ferns. The list of species agreed with Perry to focus on are described in Sheet 2 of the workplan Appendix 5)

1.5 St Helena staff gain experience in conducting surveys, undertaking new clearance techniques and managing better nursery workflow

Team leaders Ross Henry and Grahame Leo are now required to submit propagation requests to Perry Leo (Appendix 7 – Propagation request form; lead in time for production), based on their estimated requirements from their work plan (Appendix 5).

Range of species being grown in the nursery was reviewed. False gumwoods are particularly prone to mites (broad & red spider) and the Nursery Officer & Senior and Field Conservation Technicians confirmed that are struggling to grow well in Field Gene Banks (Nursery & Bellflower Ridge) where they have been planted – they grow at a slower rate than surrounding vegetation and are quickly shaded and outcompeted by other species particularly when infected with mite. It was agreed that all false gumwoods and redwoods will no longer be produced at the Peaks nursery and were removed to the Scotland nursery. Planting of false gumwood and redwood will focus in other restoration and project sites on the Peaks where they are known to grow better (Cason's and Mt Vesey)

Due to the large numbers of propagules some of the large bellflowers were also removed to Scotland nursery and these will be grown on and planted at other peaks sites (Cason's).

2.1 Collate existing knowledge and data and prioritise and map habitat fragments and corridors accordingly

Work plan for prioritised habitat fragments and corridors agreed with all Peaks staff. (Appendix 5).

2.2 Set fixed survey plots across selected priority fragments and corridors (project sites)

The 10 invertebrate survey sites established under DPLUS029 will be repeat surveyed in Year 3.

Six corridors established under DPLUS099 will be mapped and botanically surveyed. Two sites will be randomly selected for inclusion in the invertebrate survey.

Fragment project sites will be botanically surveyed, repeating the 2016 survey of DPLUS029 in Year 3.

2.3 Conduct surveys and establish baseline database including Drone photo grid of project sites

An aerial drone survey to establish long term monitoring of sites will be designed and conducted in Year 3.

2.4 Undertake clearance across selected priority fragments and corridors (project sites)

This forms the core of the project work and has been on-going since project inception. Workplan (Appendix 5) sets out the prioritised work programme for 2021-2022, annual activity summary (Appendix 8) summarises work conducted and photo evidence of site work (Appendix 9)

2.5 Conduct repeat surveys every six months, including drone photo grid of project sites

Drone monitoring will be established in Year 3 which will include setting standards for operation so that repeat surveys can be conducted and data outputs can be analysed to monitor trends in habitat change over time.

2.6. Analyse survey data and photo comparison

Survey to take place in Year 3.

3.1 Plan, arrange and host workshops

This action was subject to an agreed change request. One international webinar in Year 3 on habitat restoration and invasive plant management to maximise biodiversity benefit with participants from St Helena, the South Atlantic Islands and beyond.

This webinar is planned to take place at the end of the project in March 2022 after botanical, invertebrate and drone survey work has been completed and to fit in with the work programme of potential contributors. The webinar will be for practitioners involved in cloud forest restoration and invasive non-native species control to their share knowledge and experience. During the workshop there will be 'break out' groups to discuss key issues and lessons learnt. This is considered particularly important as the DPLUS099 comes to an end and the work transitions into the programme of works set out within the Peaks Implementation Plan.

3.2 Present & disseminate project information through newspaper articles, press releases, presentations, radio interviews

The Peaks team attended the EMD nursery open day at Scotland on 11 November 2020, pictures of their work were on display and they were on hand to answer visitors questions.

An article titled “Training underpins work to save cloud forest trees and their associated endemic plant and animal communities” was published in the island’s two news papers (Independent and Sentinel). (Appendix 3)

3.3 Collaborate with Ascension Island Conservation and St Helena Conservation to arrange an exchange visit between staff members from both organisations

This activity was subject to a change request. Changes made were “An informal forum for professionals working in the SAIs set up, to exchange knowledge and experience in ecological restoration, conservation and propagation of native & endemic plants”. Also to “one international webinar in Year 3 on habitat restoration and invasive plant management to maximise biodiversity benefit with participants from St Helena, the South Atlantic Islands and beyond”.

Review of online communication forums and identified two as potential mechanism for this purpose – Slack <https://slack.com/> and Discourse <https://www.discourse.org/> . Slack in use by GIS Manager in SHG but run by separate server system as cannot be supported by ThinClient which SHG IT is run off. Further investigation needed.

## 3.2 Progress towards project Outputs – this section still needs work on it

1, Strengthened local capacity to better protect priority habitat fragments against invasive plants

1.1. 19 field workers trained in applied ecology and new invasive plant clearance protocols starting in year Two and accomplished by end of year Three

This output is on course.

Skills learnt in Year 1 by the DPLUS099 of the project are being applied and developed through practical experience. Closer working relations and team work with the core EMD habitats team is building bridges for knowledge exchange and skill transfer to take place in ecological approaches and invasive plant clearance protocols.

Executed and planned training programmes will further equip field staff with core skills to conduct and develop working practise in a way that is safe for them and the environment in which they work. Training in this year focused on developing skills in GPS and QGIS, safe use of pesticides and working with ropes. Planned future training includes: safe use of drones to aid aerial surveillance work and invertebrate identification, conservation and ecology.

Devlin Yon, GIS Manager led the training in GPS which was given to 20 staff (Appendix 4)

Devlin Yon led a second training session to five staff using a smart phone and QGIS to give training in recording locations for surveying. The phone which the team now keep with them has the fragment map loaded on it, so that they can locate their position to work at different sites as well as add to records. (Appendix 4).

James Fantom delivered training in the save use of pesticides to 9 staff.

Training in the safe use of ropes was conducted by Alan Thomas, Deputy Chief Fire Officer for 9 staff but could not be completed due to illness. The training will resume once Alan is back to work.

1.2. Ten staff trained in nursery scheduling and optimum production workflow

Protocols for seed collection; seed processing and propagation requests have been standardised across both the peaks and Scotland nurseries. All nursery based team leaders (Perry Leo, Richard Henry, Karen Williams) and the fieldwork team leaders (Peaks: Graham Leo; Species: Darrell Leo and DPLUS099 (Ross Henry) work to the same protocols (Appendices 6 & 7). All DPLUS099 project staff (and EMD Peaks team staff have been part of the discussions at which the protocols have been described.

1.3. 15 stakeholders trained in habitat assessment techniques (year One) and timing/scheduling/programming of restoration follow-up visits (year Three)

Survey work has not been conducted. It is scheduled for Year 3. The timing, scheduling and programme of restoration follow-up visits has been discussed with the Peaks DPLUS099 and habitats teams and is reflected in the workplan (Appendix 5).

2. Improved knowledge of applied ecology of vegetation succession enabling better scheduling of invasive alien plant control and restoration activities

2.1. ~ Project work areas reviewed and sites prioritised annually across the 115 DPLUS029 sites

Workplan prepared with the team based on their experience and advice of managing a sustainable, timely programme of invasive alien plant control and planting (Appendix 5).

The annual activity summary (Appendix 8) shows that the Senior Conservation Technician is making decisions about timing of return visits to sites, prioritising sites and prioritising work activities at sites. In year one of the project these decisions would have been taken by the project manager or restoration specialist.

2.2. Potential corridors to link priority habitat fragments defined during the first Quarter and prioritised according to habitat quality and suitability

Six corridors have been established under the project.

2.3. A botanical monitoring programme set up to track change over the lifetime of the project and beyond, building on the baseline botanical survey conducted in DPLUS029

The monitoring programme will follow the survey methodology established for the cloud forest site surveys undertaken and reported on for Darwin DPLUS029 and is due to take place in Year 3.

A protocol for baseline assessment and subsequent survey of interconnecting habitat corridor establishment in the Peaks National Park cloud forest was designed by this project in October 2019 and will be taken forward in Year 3.

2.3.2. An invertebrate monitoring programme set up to track change over the lifetime of the project and beyond, building on the baseline invertebrate survey conducted in DPLUS029.

2.4. Clearance protocols implemented, efficacy evaluated, and techniques refined/adjusted by close of project

Clearance protocols were established in Year 1 of the project and an additional

3. Improved knowledge and awareness of invasive plant management strategies and alternative approaches amongst key stakeholders, demonstrating sustainability through the betterment of protected areas with decreasing intervention over time, lowering the cost and effort to manage in the long run (ANRD, Tourism, Private landowners, general public, ASCI conservation & St Helena Terrestrial Conservation, and the wider conservation community)

3.1. One international webinar in Year 3 on habitat restoration and invasive plant management to maximise biodiversity benefit with participants from St Helena, the South Atlantic Islands and beyond.

3.2. Project presentations at the yearly EMD nursery open days

3.3. Change proposed: An informal forum for professionals working in the SAls set up, to exchange knowledge and experience in ecological restoration, conservation and propagation of native & endemic plants.

3.4. Increased local awareness through newspaper articles and quarterly radio interviews or segments. Project progress updates through SHG press releases and website

### **3.3 Progress towards the project Outcome**

The project outcome is described as “continued development of invasive plant control protocol: refining techniques and quantifying its benefits, allowing better informed habitat management decisions”

0.1 Revision of clearance protocols for 9 invasive plant species by the end of Year One

Achieved Year 1 and updated Year 2.

0.2 Develop Invasive Plant management protocols for 5 additional priority invasive species by the end of Year One

Updated Year 2 with the addition of 9 species as reported in Half Year Report. The St Helena National Trust created a quick reference traffic light guide to weed control for their forest sites under their Darwin Initiative funded Community Forests Project (20-005). We really like this format because it is easily interpretable and great for teaching new recruits or as a quick reference in case of uncertainty. As such we've combined all the Peaks species and the control methods within this document to expand it to cover all the Peak species conservationists will come across. A copy of this revised document will be included in the 3<sup>rd</sup> Year Half Year Report. We are grateful to Martina Peters, Head of Conservation for allowing us to use their format.

0.3 Inclusion of Clearance Protocol in Peaks Management Plan by end April 2019

The clearance protocols will be a live working document for all EMD staff. The techniques will be well established within the Peaks teams by the end of the project and shared with all the Cloud Forest Project stakeholders for reference, use and revision.

0.4 Adoption of Clearance Protocol in Biodiversity Management Plans by end March 2022

At the time of designing this project, there was agreement amongst ENRP and wider stakeholders for the need to secure funding for a terrestrial biodiversity action, recognising that this is one of the CBD commitments that SHG has not yet achieved. An application for funding for this did not go ahead as planned and the establishment of a Biodiversity Management Plan will not happen within the duration of this project. This indicator is no longer one that the project can achieve.

The clearance protocols developed during this project and combined with those established by the St Helena National Trust under DI 20-005 will help embed and standardise protocols across the two main conservation organisations. Furthermore, these will be discussed and shared with wider stakeholders during the webinar (online conference/workshop) in March 2022.

0.5. Native biodiversity species number increased across priority project areas to hold >70% of total peaks species compliment

Surveys not yet conducted or reported on.

0.6 100% of habitat corridors have improved vegetation type quality in terms of native species abundance and species richness

Surveys not yet conducted or reported on.

In term of quantifying benefits the measurable indicators could have been revised to be more targeted and reflect changes to the project.

Revisions to the design of the project have been:

- to commission a report to analyse the results of the 2016 invertebrate survey conducted under DPLUS029 at 10 of the fragment sites. With the intention that this forms the baseline for interpreting the status of invertebrates at these sites prior to the commencement of DPLUS099 and to conduct a comparable study in 2021.
- Not to conduct annual botanical surveys but to repeat the DPLUS029 habitats survey, with some additions. DPLUS029 habitats survey provides a baseline for the status of the health of the habitats at the fragment sites at the start of DPLUS099 and will enable an evaluation of their status at the end of the project, providing a means to evaluate the approach adopted through DPLUS099.

### **3.4 Monitoring of assumptions**

1. Peaks Management Plan will be completed by the end of April 2019



This was achieved and the ecological approach developed through DPLUS029 and tested in DPLUS099 forms the basis of the ecological restoration plan.

2. St Helena Biodiversity Management plan will be completed during the project lifetime.

This assumption was not realised and will not be realised during the project's lifetime. It remains a key document and obligation under the CBD for SHG to deliver.

3. Weather allows surveys and drone operation to be carried out in a timely fashion

The weather on the peaks is unpredictable and being a cloud forest often wet or misty. Surveys have not yet taken place but weather will be a factor we need to take into account when planning the work.

4. Permission is granted from the Air Access Authority to operate drone in the Restricted Fly-Zone.

All drone work follows SHG procedures. Permission is sought and has been granted for flights on the Peaks which must take place at times when commercial flights are scheduled.

5. Attendance (for training) levels as expected

Training has been well attended. Staff have been keen to develop their knowledge and new skills and apply it to their work.

6. Fieldwork conditions, especially in remote and difficult and steep terrain, are dependent on clear weather conditions.

The weather has been an issue during this reporting year, causing significant impact particularly in the first half year. The team adapt their work schedules according to the weather, working in safer or drier sites such as the field gene banks or path verges or support nursery work.

7. Specialist entomological expert is available.

Securing entomological expertise has been an issue for us. Entomological support is required and will be delivered in Year 3. We will need to secure a combination of local and off-island expertise in order to deliver the project activities as local expertise alone is not sufficient.

8. SHG and ASCG grants permission to enable exchange visits.

This assumption is no longer valid as exchange visits will not be taking place during the project.

9. EMD nursery open days continue to take place on a yearly basis

This years open day went ahead at Scotland.

10. Attendance at workshops

We haven't held any yet – but the assumption remains. To encourage engagement and attendance we will promote and inform stakeholders and participants about the event early so that they can plan their attendance and involvement.

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

Through its implementation the project has contributed to:

1. **<https://www.sainthelena.gov.sh/wp-content/uploads/2021/11/Restoring-St-Helenas-Internationally-Important-Cloud-Forest-for-Water-Security-Wildlife-2021-2026.pdf>** & **<https://www.sainthelena.gov.sh/wp-content/uploads/2021/11/Restoring-St-Helenas-Internationally-Important-Cloud-Forest-for-Water-Security-Wildlife-2021-2026.pdf>** **Restoring St Helena's Internationally Important Cloud Forest for Water Security & Wildlife Implementing the Peaks Management Plan** (2019-2024) (2021-2026)

The implementation plan (2021-2026) builds on long-term local expertise and is based on a cross-sectoral partnership that has agreed to a step change in the conservation approach. The collaborative design of a multi-disciplinary and multi-million-pound implementation project will

transform impact from one of slowing biodiversity loss to one of restoration for both wildlife and water security, thus improving climate resilience. Former and existing project staff (Lourens Malan, Andrew Darlow, Sasha Bargo, Vanessa Thomas-Williams and Rebecca Cairns-Wicks) have all made significant contributions to these documents ensuring that the learning and ecological approaches adopted by EMD developed through DPLUS099 and DPLUS029 are fully integrated within the plans.

## 2. Climate change & CBD

The Convention on Biological Diversity has been extended to St Helena.

The cloud forest is globally significant, supporting over 250 unique species and providing almost 40% of the island's water. The project has established ecological techniques to reduce risk of loss of biodiversity associated with old growth cabbage trees existing in tiny fragmented and in some cases physically and reproductively isolated sites within the cloud forest from the overwhelming impact of invasive species and start the process of reconnecting fragments through corridors dominated by native species.

Scaling this work up in the future will contribute to improved water security for the Island, greater sustainability of conservation of biodiversity, both of which will contribute to enhanced climate change resilience and generate opportunities for tourism, education and research.

This project supports the UK Government's 25 Year Environment Plan goal of: 'taking action to recover threatened, iconic or economically important species of animals, plants and fungi, and where possible to prevent human induced extinction or loss of known threatened species in England and the Overseas Territories'.

## 5. **OPTIONAL: Consideration of gender equality issues**

The Peaks teams are made up of people of all ages and abilities. There are staff with low levels of reading and writing skills and all training is designed with this in mind to enable and encourage participation without need to draw attention to abilities.

Across EMD habitats and nursery teams there are currently only 2 female members of staff. The need for a staff toilet has been identified for all staff, and this would also benefit female staff, particularly making women feel comfortable about working on the peaks as part of the Peaks teams in the future. A toilet will be paid for out of a new fund from the FCDO CSSF Cloud Forest Project.

## 6. **Monitoring and evaluation**

Not at this time, but it would have been better to have done so, particularly as the timing of achieving outcomes has changed. That this has not been addressed so far is in part a reflection that project managers focus has not been on M&E but primarily on supporting training and team building and delivery of work in the field and that project management is not full time.

Changes to financial and administrative management within SHG should be reflected.

Administrative oversight lies with Darren Duncan and the project manager has regular meetings with him to update on project progress and seek agreement on activities and approaches. Darren has to give prior approval for tenders and signs off all contracts.

The Project Manager keeps in regular contact with the field teams. Team leaders Graham Leo and Ross Henry each have access to mobile phones and call the PM to confirm activities and progress. Both come into the Scotland nursery at least once a month to download images and write up progress reports.

SHG financial procedures are followed for the financial management of the donor funding and all tender and procurement processes are overseen by the financial team.

- Do partners share the M&E work or is this the role of one organisation? How is information shared amongst partners/stakeholders?

Iterative learning and adaptive management - Regular team meetings

Contracts with service providers have been signed and project management has had to work with contractors to adapt and adjust timelines or re-negotiate contracts when delays beyond our control have been realised: rope training was temporarily suspended whilst the Chief Fire Officer was on medical; invertebrate training and reporting was delayed due to ill-health; and drone training and setting up survey plots has been delayed by poor weather and because they are fully employed elsewhere and haven't been able to get time off as expected. With limited on island expertise to call upon the project is dependent on the service providers that are available and needs to be able to work with them to secure the desired outcomes. Where it has become increasingly obvious that local service providers are not going to be able to deliver, alternative approaches have been adopted to secure services from overseas.

At this time no project products or materials have been shared online on the SHG website, with the exception of news of project progress and activities. No products have yet been produced, expected project products on completion of project will include:

GIS layers of DPLUS099 sites and photographs illustrating work in progress

Invertebrate survey report and report of the 2016 invertebrate survey conducted under DPLUS029 which was not produced at that time.

Botanical survey report

Aerial survey protocol and report

A key M&E activity hasn't been achieved yet in terms of delivery of botanical surveys and this will take place in Year 3.

## **7. Lessons learnt**

Continuous improvement in professional development and team work were key areas of focus in this year and ones that we feel have gone well. Training needs to achieve outcomes were identified, local trainers identified and all members of staff across EMD Terrestrial Conservation – based at the Peaks and Scotland - have participated, ensuring learnt practise is established in all staff. For the more technical training key staff have been identified who can take the lead role in developing new and more technical skills (e.g GPS, surveying and drone flight). Lessons learnt are shared amongst the teams through practise.

Building staff working relations has also involved the SHG HR Department who held a dedicated session on 22<sup>nd</sup> March 2021 to address SHG values and expectations of behaviour and team working. On St Helena and within these small teams are staff who share family relations and live in close proximity and so it isn't always easy for staff to speak out. This session was well received and whilst it wasn't a panacea, we did see a stepwise improvement in staff behaviour. Team members have at times struggled with inappropriate behaviour from their colleagues and it has taken time to address issues. Managers need to remain alert to this to build on gains made and maintain good communications between team members within teams and between teams and managers.

Due to the changes in project management in Year 2, greater reliance has been placed on Ross Henry (Senior Conservation Technician) for team management, fieldwork activities and reporting. This, he confirmed has proven stressful, in particular when dealing with team relations issues and planning field work. However, Ross has done extremely well in his roll and although he hasn't always felt comfortable with the responsibility he has done a great job in performing his duties.

Staff have responded well to the investment in training and being given due recognition to their work and achievements. They have a strong sense of responsibility and want to do a good job. They did feel the loss of the restoration ecologist Andrew Darlow who provided guidance and mentoring in Year 1. They have however done a great job in applying the ecological approaches learnt and continued to develop them through practise and their own experience.

If we could do it again, what would we do differently?

1. Ensure that prior to submission of the project proposal, named stakeholders are fully cognizant of the project, confirm their commitment and understand and agree to what is expected of them in delivering the project.

A key stakeholder in the development of the project concept was a Project Manager who left the island at the end of their project (DPLUS059). The key implementing stakeholder Lourens Malan resigned in Year 1. Implementing stakeholder Vanessa Thomas Williams was not fully appraised of the project at the time of submission. The application confirms that they implementing stakeholders “will continue to provide guidance and support regards to the practicalities, identifying priority needs and working out their involvement levels”. Ironically, Vanessa Thomas Williams took over project management and so this statement has been realised.

Whilst the project concept might not be complex it has been challenging to implement and not having had early broader stakeholder buy is something we would seek to avoid in the future. We see the project as being a stepping stone for the Peaks Implementation Plan. This DPLUS099 impacts is described as “Invasive plant species are managed sustainably at a national level, improving livelihoods through improved native biodiversity and water security, improving our tourism product and natural capital” which aligns directly with the Goals of the Peaks Implementation plan. This plan is a good illustration of the level of stakeholder commitment and support needed to deliver across the range of work and activities that this project sought to achieve

2. Don't attempt to manage a project of this type without partners. Set up the project with clearly defined stakeholder commitment and engagement from the start

The project set out to engage stakeholders through consultation and experiences shared without evidence of confirmed commitment at time of submission with the exception of UKCEH and Ascension Conservation although we confirmed that Ascension was not prepared for this project and other priorities and COVID-19 has prevented their practical engagement as originally set out (see Half Year Report).

This has been mitigated by:

- 2.1) Bringing both Peaks teams (EMD Core and DPLUS099) together, ensuring everyone on the team understood what the project was about and how it was to be delivered and for each activity ensuring everyone contributed.
- 2.2) Engagement on the development of the Peaks Implementation Plan. Ensuring multi-organisational involvement and commitment to managing the cloud forest, securing cross-sector understanding and agreement on the management approach.
- 2.3) Developing stakeholder engagement through year two (as described in Section 2 of this report)
- 2.4) Planning for a local based international webinar (via Zoom) and workshop in the last month of the project to engage with the intended project stakeholders on invasive non native species control methods and ecological restoration techniques of the cloud forest. We will be inviting conservation practitioners on Ascension Island and beyond to share knowledge and experience.

3. Employ a full-time project manager

The resignation of Project Managers in Year 1 and 2 of the project resulted in the adoption of an alternative approach to enable the project to continue. Project Leader Darren Duncan initially approached the St Helena National Trust, but they declined to take on management due to existing work commitments. Another factor affecting the local situation was the ongoing SHG review of its Directorates and services with the aspiration that EMD's management structure would change under the 'Fit for the Future' review. Vanessa Thomas-Williams, Nursery Officer was approached to take on management, and Rebecca Cairns-Wicks (SHRI Coordinator) agreed to provide project management support.

The project would have benefited from a full-time manager and would have been better able to achieve project outcomes but it has been possible to manage for three key reasons:

- 3.1) The project has benefited from consistent management support, building relationship bridges between the Core EMD staff and DPLUS099 team and by bringing all staff across EMD together for training and professional development under the project, supporting achievement of the output 1 to strengthen local capacity to better protect priority habitat fragments against invasive plants, improving the flow of skills and knowledge, and modification of techniques, gained through DPLUS029 and DPLUS099.
- 3.2) Staff have gained a voice in the decision making with regards prioritising work, work programmes and approaches, communication and relations within and between teams and the Project Manager have improved.
- 3.3) The teams were already established and led by experienced team leaders (Ross Henry and Graham Leo). It has put additional pressure on them and this is regretted, but they have risen to the challenge.
4. Ensure new project teams are integrated within existing teams, so they are not treated or managed differently and salary scales are on a par.

In part this we feel is a legacy from the previous project (DPLUS029) when new techniques and approaches were developed within the project team. The knowledge and skill sharing was to be addressed within DPLUS099, and it is. But we feel that this left the core EMD team in a position where they've been disadvantaged, not fully comprehending the new approaches adopted and taken forward whilst they continued to maintain their existing invasive species control and planting techniques.

Whilst there is a significant advantage to being able to offer higher salaries for project-based work, commensurate to the new skills and technical abilities needed to deliver outcomes, if job descriptions and salaries are not comparable with existing staff who are expected to perform a similar job and learn and deliver the new techniques adopted then it's hard for staff to feel comfortable with the lack of seeming equality. In practise we would like to see all salaries raised.

Additionally, if we are unable to offer a similar salary at the end of the project, to retain trained and qualified staff, and sustain the benefits of the project, there is a risk that we may lose them.

Recommendations from lessons learnt

1. Keep management approaches simple

At the end of the day, it is the teams on the ground that have to be able to make decisions about work activities at sites (how far to take invasive removal, how best to link fragments) and report on them. The cloud forest is a highly complex, fragile, and challenging work environment (steep unstable slopes, wet weather conditions). As fragments coalesce and corridors are created it becomes a more complex situation to report on and monitor. Beyond the length of this project, as work is scaled up under the Peaks Implementation Plan, a different approach to defining work areas and conducting work will be recommended.

2. Produce and keep under active revision project timetabled action plan.
3. Produce a project communication plan at time of design and ensure that the project is planned and costed to enable its successful delivery.
4. Plan and cost in more support for administration and financial project management to take the pressure of the Project Manager.

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

Feedback on Half Year Report (2020) requested:

- Greater clarity as to why staff members have left – you don't need to provide personal information - indicative reasons would suffice

The three management staff have left the project during the first 18 months of the project due mainly to reasons of these staff members not always being able to work collectively together with some of the other members of the Terrestrial Conservation Section (TCS) and Portfolio Director for the good of terrestrial conservation outcomes for the Island. There have been

issues experienced with some members not being able to integrate the project well enough within the wider TCS's work programme and discharge instructions given by the Portfolio Director in relation to project activities following consideration of advice from other members of the TCS and project stakeholders.

- A need to understand how you will (or have been) address(ing) the biosecurity issues you flag in your half year report

Please refer to Appendix 2 and comments in Section 2 numbered points 4 & 5.

- A need to understand why there was misidentification of the grass – is it due to lack of capacity or is this a difficult species to identify

Please refer to Appendix 1 Report on the Peak Grass.

## **9. Other comments on progress not covered elsewhere**

The exit strategy has become more clearly defined through the work of the Peaks Development Group of which the PM and Rebecca Cairns-Wicks are both members. The establishment of a costed and approved Implementation Plan <https://www.sainthelena.gov.sh/wp-content/uploads/2021/11/Restoring-St-Helenas-Internationally-Important-Cloud-Forest-for-Water-Security-Wildlife-2021-2026.pdf> established through a highly collaborative cross-sector multi-organisational approach assures us that the approaches adopted through DPLUS029 and DPLUS099 have been shared, supported and that moving forward the continued development of learnt and best practise will continue. With support from the RSPB, SHG is seeking UK Government funding to support this ambitious project which it was hoped would be funded to start April 2021. Unfortunately due to COVID-19 this wasn't realised but we remain hopeful it will be funded soon. The project makes provision for the continued employment of our existing DPLUS099 team and provides for future growth in employment to achieve the expected year on year doubling of nursery output and significant upscaling of restoration activities across prioritised cloud forest fragments and water catchment areas.

## **10. Sustainability and legacy**

The delivery of the plan work in this year led by the Senior Field Technician which was developed with both DPLUS099 staff and the core EMD team shows significant progress in transfer of knowledge from the original project manager and restoration specialist and the experience that has grown from continual learning and practise.

Extending the training to all EMD staff will help provide confidence that the knowledge gained will not be lost with staff movements in the future. Improved team relations and working has resulted in better communication and discussion of work activities and sharing of ideas and experience, helping to move everyone forward to implementing the clearance protocols and ecological restoration techniques. Through training programmes the team has broaden its skill base so that between the staff, they have a range of skills and experience to successfully implement the work going forward and be less reliant on external expertise.

A review of the techniques used and outcomes (reporting on survey work and survey reports) will be made to key stakeholders in March 2022 to reflect, refine and support prioritisation work going forward under the Peaks Implementation Plan (2021-2026).

## **11. Darwin identity**

The Darwin Initiative logo and UK Aid are included in all project publications and displays.

## **12. Impact of COVID-19 on project delivery**

This project has been locally driven and implemented and has therefore not been significantly impacted by COVID-19.

### 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](mailto:ODA.safeguarding@defra.gov.uk) as indicated in the T&Cs.

Projects funded through Darwin Plus must fully protect vulnerable people all of the time, wherever they work. All projects are expected to provide a safe and trusted environment which safeguards anyone who the organisation has contact with, including beneficiaries, project staff, volunteers, and downstream partners. In order to provide assurance of this, projects are required to have appropriate safeguarding policies in place. **Please outline and/or provide any updates on your lead organisation's policies or procedures, outlining how you have ensured all project action (including activities led by downstream partners) has applied these principles in practice. Please provide any information on how safeguarding concerns relevant to your project have been managed during the reporting year, and how future risks will be mitigated.**

This question applies to all projects, but will be particularly relevant for projects working directly with communities or with informant networks. As outlined in the terms and conditions for your project, the lead organisation must:

- have a safeguarding policy, which includes a statement of your commitment to safeguarding and a zero tolerance statement on bullying, harassment and sexual exploitation and abuse
- keep a detailed register of safeguarding issues raised and how they were dealt with
- have clear investigation and disciplinary procedures to use when allegations and complaints are made, and have clear processes in place for when a disclosure is made
- share your safeguarding policy with downstream partners
- have a whistle-blowing policy which protects whistle blowers from reprisals and includes clear processes for dealing with concerns raised
- have in place a Code of Conduct for staff and volunteers that sets out clear expectations of behaviours - inside and outside the work place - and make clear what will happen in the event of non-compliance or breach of these standards

Additional guidance can be found on [GOV.UK](http://GOV.UK).

### 14. Project expenditure

Please expand and complete Table 1. If all receipts have not yet been received, please provide indicative figures and clearly mark them as Draft. The Actual claim form will be taken as the final accounting for funds.

**Table 1: Project expenditure during the reporting period (1 April 2020 – 31 March 2021)**

Project spend (indicative) in this financial year	2020/21 D+ Grant (£)	2020/21 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				

Operating Costs				
Capital items				
Others (Please specify)				
<b>TOTAL</b>				

Highlight any agreed changes to the budget and **fully** explain any variation in expenditure where this is +/- 10% of the budget. Have these changes been discussed with and approved by Darwin?



## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2020-2021 – if applicable

Project summary	Measurable Indicators	Progress and Achievements April 2020 - March 2021	Actions required/planned for next period
<p><b>Impact</b></p> <p>Impact: Invasive plant species are managed sustainably at a national level, improving livelihoods through improved native biodiversity and water security, improving our tourism product and natural capital</p>		<p>(Report on any contribution towards positive impact on biodiversity or positive changes in the conditions of human communities associated with biodiversity e.g. steps towards sustainable use or equitable sharing of costs or benefits)</p>	
<p><b>Outcome</b> Continued development of invasive plant control protocol: refining techniques and quantifying its benefits, allowing better informed habitat management decisions</p>	<p>0.1 Revision of clearance protocols for 9 invasive plant species by the end of Year One</p> <p>0.2 Develop Invasive Plant management protocols for 5 additional priority invasive species by the end of Year One</p> <p>0.3 Inclusion of Clearance Protocol in Peaks Management Plan by end April 2019</p> <p>0.4 Adoption of Clearance Protocol in Biodiversity Management Plans by end March 2022</p> <p>0.5. Native biodiversity species number increased across priority project areas to hold &gt;70% of total peaks species compliment</p> <p>0.6 100% of habitat corridors have improved vegetation type quality in terms of native species abundance and species richness</p>	<p>0.1 &amp; 0.2 Completed &amp; Reported Year 1 report</p> <p>0.3 Peaks National Park Management Plan  <a href="https://www.sainthelena.gov.sh/wp-content/uploads/2019/12/St-Helena-The-Peaks-National-Park-Conservation-Management-Plan-2019-2024.pdf">https://www.sainthelena.gov.sh/wp-content/uploads/2019/12/St-Helena-The-Peaks-National-Park-Conservation-Management-Plan-2019-2024.pdf</a>. Management objective 3a1 refers “Cloud forest habitat is increased in area and quality through planting of native species to increase patch sizes, reduce fragmentation and increase connectivity, and by management of non-native invasive species to create a self-sustaining functioning ecosystem” and activities 3a1.1-1.4 refer.</p> <p>The implementation plan for the Peaks Management Plan  <a href="https://www.sainthelena.gov.sh/wp-content/uploads/2021/11/Restoring-St-Helenas-Internationally-Important-Cloud-Forest-for-Water-Security-Wildlife-2021-2026.pdf">https://www.sainthelena.gov.sh/wp-content/uploads/2021/11/Restoring-St-Helenas-Internationally-Important-Cloud-Forest-for-Water-Security-Wildlife-2021-2026.pdf</a> takes PMP activities and identifies actions required</p>	<p>0.2 Share protocols and facilitate knowledge exchange and discussion with wider stakeholders (farming, forestry, conservation) at webinar (conference/workshop) to be hosted Q4 Yr 3.</p> <p>0.3 Continue to work closely with project partners in the implementation of the Peaks Management Plan through membership of the Peaks Development Group to prepare project bids to secure funding for the work under DPLUS099 to continue and be upscaled.</p> <p>0.4 Progress plans for Peak Grass propagation – removing Barn Grass where planted, establishing new field gene banks with vegetative divisions of known wild Peak grass. Work to increase fern production and range of ferns planted out for ground cover.</p> <p>0.5 Progressing invertebrate survey, corridor, and habitat surveys</p>

Project summary	Measurable Indicators	Progress and Achievements April 2020 - March 2021	Actions required/planned for next period
		to achieve them. Activities described under biodiversity pillar 1.1-1.4	
<b>Output 1. Strengthened local capacity to better protect priority habitat fragments against invasive plants</b>	<p>1.1. 19 field workers trained in applied ecology and new invasive plant clearance protocols starting in year Two and accomplished by end of year Three</p> <p>1.2. Ten staff trained in nursery scheduling and optimum production workflow</p> <p>1.3. 15 stakeholders trained in habitat assessment techniques (year One) and timing/scheduling/programming of restoration follow-up visits (year Three)</p>	<p>1.1 Section 1.2, 1.1 describes and Appendix 4 &amp; 10</p> <p>1.2 Section 1.2, 1.2 describes and Appendices 6 &amp; 7</p> <p>1.3 Surveys and training (safe use of drones and aerial survey, habitat survey and invertebrates) will take place in Yr 3 and will support training. Assessments will inform timing/scheduling and programming of restoration follow up visits. Knowledge and experience will be shared to inform planning for continuation of work under the Peaks Implementation Plan.</p>	
Activity 1.2 Recruit suitably experienced project personnel		Recruitment of project field & nursery technicians completed Year 1 and staff have been retained in post. Resignations of Project Managers, Yr1 & Yr2 and Restoration Ecology Specialist.	On going professional development of staff through training – safe use and aerial survey using drones; GPS/QGIS; invertebrate, habitat survey techniques, working on ropes.
Activity 1.3 St Helena staff trained in survey techniques, applied ecology and new clearance protocols		<p>20 EMD &amp; Project staff participated in GPS training (17 men, 3 women)</p> <p>9 EMD and Project staff (all men) participated in safe use of pesticides training (certificates of attendance issued – Appendix 10)</p> <p>7 EMD and Project staff participated in working with ropes training</p> <p>Through shared team meetings and regular meetings with the Project Manager, Ross Henry and Graham Leo (EMD Habitat, team leader), the</p>	<p>Training in the following:</p> <p>Safe use of drone and drone aerial surveying – 3 staff</p> <p>Invertebrate identification, conservation and ecology + 20 staff</p> <p>Invertebrate survey techniques – 3 staff</p> <p>Habitat survey techniques – 2 staff</p> <p>Completion of working on ropes training</p>

Project summary	Measurable Indicators	Progress and Achievements April 2020 - March 2021	Actions required/planned for next period
		<p>clearance protocols established within the team during year 1 of the project have been discussed at length, are better understood and through establishing a shared work programme they are being adopted by the core EMD Peaks team (Appendix 5)</p> <p>2 EMD and Project Staff have been registered on the City and Guilds Course Level 2 Diploma in work based environmental conservation to complement the training programme delivered across the project.</p>	<p>Progress City and Guilds NVQ with 2 staff</p>
<p>1.4 St Helena staff trained in nursery scheduling and managing production workflow</p>		<p>Work-based training and mentoring took place in Year 1 under PM and RES, on-going skill development through practise and experience.</p>	<p>Continued support and mentoring from VTW</p>
<p>1.5 St Helena staff gain experience in conducting surveys, undertaking new clearance techniques and managing better nursery workflow</p>		<p>Work-based experience, mentoring and adoption of nursery protocols with VTW in Yr 2 and planning work schedules with adoption of Work Plan.</p> <p>Appendix 7 – Propagation request form; lead in time for production), based on estimated requirements from work plan (Appendix 5).</p>	<p>On the job training alongside contracted surveyors.</p> <p>On the job training through corridor recording and surveying</p> <p>Production in support of the propagation for DPLUS099 shared across Peaks and Scotland nurseries. Year 3 review of production management across both nurseries to maximise output of healthy nursery stock.</p>
<p><b>Output 2. Improved knowledge of applied ecology of vegetation succession enabling better</b></p>	<p>2.1. ~ Project work areas reviewed and sites prioritised annually across the 115 DPLUS029 sites</p>	<p>2.1 Work plan for prioritised habitat fragments and corridors agreed with all Peaks staff up to March 2022. Maps to be produced following training in GPS/QGIS of existing sites, new corridors and new field gene banks. Plan is a</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2020 - March 2021	Actions required/planned for next period
<b>scheduling of invasive alien plant control and restoration activities</b>	<p>2.2. Potential corridors to link priority habitat fragments defined during the first Quarter and prioritised according to habitat quality and suitability</p> <p>2.3.A botanical monitoring programme set up to track change over the lifetime of the project and beyond, building on the baseline botanical survey conducted in DPLUS029</p> <p>2.3.2 An invertebrate monitoring programme set up to track change over the lifetime of the project and beyond, building on the baseline invertebrate survey conducted in DPLUS029.</p> <p>2.4. Clearance protocols implemented, efficacy evaluated, and techniques refined/adjusted by close of project</p> <p>2.5.1 Training delivered to 13 staff in botanical survey techniques and botanical survey completed in Year 3</p> <p>2.5.2 Training delivered to 13 staff in invertebrate identification, ecology and survey techniques and invertebrate survey completed in Year 3</p>	<p>guide as the team need to make decision about where to work on a daily basis subject to weather conditions and other factors (Appendix 5).</p> <p>2.2 Six priority corridors identified and established, mapping and surveying to be completed.</p> <p>2.3 Fragment project sites will be botanically surveyed, repeating the 2016 survey of DPLUS029 in Year 3.</p> <p>2.3.2 Training of staff with an introduction to invertebrate identification, ecology and conservation to be conducted in next period prior to survey / monitoring work being contracted so that staff can work alongside entomologist to observe and learn techniques to support repeat monitoring.</p> <p>2.4 to be informed by habitat survey and reviewed with wider stakeholders.</p>	
Activity 2.1. Collate existing knowledge and data and prioritise and map habitat fragments and corridors accordingly		Work plan and annual activity evidenced Appendix 5 & 8	
Activity 2.2. Set fixed survey plots across selected priority fragments and corridors (project sites)		<p>The 10 invertebrate survey sites established under DPLUS029 will be repeat surveyed in Year 3.</p> <p>Six corridors established under DPLUS099 will be mapped and botanically surveyed. Two sites will be</p>	<p>Training – an introduction to invertebrate identification, ecology &amp; conservation.</p> <p>Contracts for invertebrate work.</p> <p>Corridor mapping and recording</p>

Project summary	Measurable Indicators	Progress and Achievements April 2020 - March 2021	Actions required/planned for next period
		<p>randomly selected for inclusion in the invertebrate survey.</p> <p>Fragment project sites will be botanically surveyed, repeating the 2016 survey of DPLUS029 in Year 3.</p>	
Activity 2.3 Conduct surveys and establish baseline database including Drone photo grid of project sites			Contract to deliver training in safe use of drones to enable staff to conduct aerial surveillance work and support for the design and conducting of aerial surveillance.
Activity 2.4 Undertake clearance across selected priority fragments and corridors (project sites)		This forms the core of the project work and has been on-going since project inception. Workplan (Appendix 5) sets out the prioritised work programme for 2021-2022, annual activity summary (Appendix 8) summarises work conducted and photo evidence of site work (Appendix 9)	On-going delivery of workplan
Activity 2.5 Conduct repeat surveys every six months, including drone photo grid of project sites			Contracts for the invertebrate and drone work will be progressed which will establish six monthly survey protocols that will be continued beyond the life of the project by EMD.
Activity 2.6. Analyse survey data and photo comparison			
<b>Output 3. Improved knowledge and awareness of invasive plant management strategies and alternative approaches amongst key stakeholders, demonstrating sustainability through the betterment of protected areas with decreasing intervention over time, lowering the cost and effort to</b>	<p>3.1. One international webinar in Year 3 on habitat restoration and invasive plant management to maximise biodiversity benefit with participants from St Helena, the South Atlantic Islands and beyond.</p> <p>3.2. Project presentations at the yearly EMD nursery open days</p>		<p>3.2 The Peaks team attended the EMD nursery open day at Scotland on 11 November 2020, pictures of their work were on display and they were on hand to answer visitors questions.</p>

Project summary	Measurable Indicators	Progress and Achievements April 2020 - March 2021	Actions required/planned for next period
<p><b>manage in the long run (ANRD, Tourism, Private landowners, general public, ASCI conservation &amp; St Helena Terrestrial Conservation, and the wider conservation community)</b></p>	<p>3.3. Change proposed: An informal forum for professionals working in the SAIs set up, to exchange knowledge and experience in ecological restoration, conservation and propagation of native &amp; endemic plants.</p> <p>3.4. Increased local awareness through newspaper articles and quarterly radio interviews or segments. Project progress updates through SHG press releases and website</p>	<p>3.3 Review of online communication forums and identified two as potential mechanism for this purpose – Slack <a href="https://slack.com/">https://slack.com/</a> and Discourse <a href="https://www.discourse.org/">https://www.discourse.org/</a> . Slack in use by GIS Manager in SHG but run by separate server system as cannot be supported by ThinClient which SHG IT is run off. Further investigation needed.</p> <p>3.4 See Appendix 3</p>	
<p>Activity 3.1 Plan, arrange and host workshops</p>		<p>To be taken forward Yr 3</p>	<p>Progress plans in collaboration with RSPB and partners engaged in delivering the Peaks Implementation Plan.</p>
<p>Activity 3.2 Present &amp; disseminate project information through newspaper articles, press releases, presentations, radio interviews</p>		<p>See Appendix 3</p>	<p>Short video of flax clearing to share with RSPB to illustrate flax clearance techniques and to use this in public displays. Continue to publish articles.</p>
<p>Activity 3.3 Collaborate with Ascension Island Conservation and St Helena Conservation to arrange an exchange visit between staff members from both organisations</p>		<p>Due to work commitments on Ascension and COVID it was agreed with that this action would not take place. Ascension Conservation would be invited to join an online webinar (conference/workshop) scheduled to take place in the final quarter of the project.</p>	<p>Planning for online webinar</p>