Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the "Writing a Darwin Report" guidance: (http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2020

Darwin Project Information

Project reference	DPLUS099
Project title	Fragmented cloud forest habitat rehabilitation through innovative invasive plant management
Country/ies	St. Helena, South Atlantic Ocean
Lead organisation	Environment Natural Resources & Planning Directorate, St Helena Government
Partner institution(s)	…
Darwin grant value	£294,309
Start/end dates of project	April 2019 – March 2022
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	April 2019 – Mar 2020 Annual Report 1
Project Leader name	Darren Duncan
Project website/blog/social media	Not existing
Report author(s) and date	Sasha Bargo 30/04/202

1. Project summary

Biodiversity loss through habitat destruction is a big threat globally and on St Helena. Lambdon & Darlow (2008), identified that approximately 99% of the island's vegetation cover is non-native, with the remaining 1% (<100 ha) highly fragmented in small pockets across the island. This small area holds over 30% of the total endemic diversity of the UK and its overseas territories. Conserving the remaining 1% is crucial for the survival of the remaining endemic species.

The project focuses on fragments within the Peaks National Park consisting of cloud forest habitat. ~120 fragments were identified under DPLUS029 'Securing St Helena's rare cloud forest trees and associated invertebrates', and are sparsely separated by invasives across the expanse of the Park.

This project aims to reconnect a proportion of the isolated fragments through the creation of ecological corridors as well as increase fragment size. This will be achieved through compliance with best practise clearance techniques developed in the Invasive Plant Clearance Protocol under DPLUS029; supplemented by restoration plantings of endemics with potentially improved genetic variation. Colonial material from the focal tree species collected under DPLUS029 has been propagated and planted within the Living Gene Bank (LGB) located adjacent to the plant propagation nursery. Establishing trees in close proximity improves pollination potential as pollinators can access flowers more easily than if fragments were separated by expanses of invasives.

2. Project partnerships

No distinctive partners were identified during the application of the project, however key stakeholders are listed below:

- The Invertebrate Team of the St Helena National Trust for the delivery of invertebrate surveys to establish baselines and monitoring thereafter.
- Ascension Island Government Conservation Section for the completion and hosting of workshops and experience exchange between Territories.

3. Project progress

3.1 Progress in carrying out project Activities

1.1 Write Job profiles, devise recruitment panel, prepare job adverts, and advertise posts

Since 1st April 2019, the project has progressed, with some delays experienced due to staff recruitment and retention. A Project Manager was recruited for a period of 26 weeks (from 1st April – 20th September), during which time, job profiles were devised and recruitment completed for: a Restoration Specialist for a period of 36 weeks (from 22nd July – 27th March 2020 on a three day per week basis), a Senior Cloud Forest Technician (commencing 1st April) and three Cloud Forest Technicians (2x commencing 7th June and 1x commencing 24th June). Subsequently, one of the Cloud Forest Technicians' resigned on 12th August 2019 and one on the 31st October 2019. A second round of recruitment was then undertaken with one additional Technician starting on the 27th August, two on 11th November 2019 and one on the 2nd December 2019. Since the resignation of the Project Manager, a recurrent staff member (Terrestrial Conservation Officer Habitats) has taken on Project Management responsibilities on a part-time basis.

Project Job Roles:

Project Manager	Full-time	Resigned
Project Manager	Part-time	On-going
Restoration Specialist	Three-Day	Resigned
Senior Conservation Technician	Full-time	On-going
Conservation Technicians x2	Full-time	Resigned
Conservation Technicians x5	Full-time	On-going

1.2 Recruit suitably experienced project personnel

Recruitment of the former Project Manager and the Restoration Specialist secured the skills of suitably experienced personnel to deliver the Project. Both staff were: familiar with the cloud forest habitat and the locations of fragments; had experience of ecological surveying and monitoring: were knowledgeable and experienced in delivering cloud forest habitat restoration techniques and worked on a previous cloud forest Darwin Project DPLUS029. The loss of this background knowledge and experience caused a delay in the Project, whilst new staff (Project Manager) caught up to speed and developed an understanding of project delivery gaps e.g. requirement for additional resources.

Due to periods of oversea leaves by the new Project Manager (5 days handover with former post holder) and the Restoration Specialist (overseas 10th Dec 2019 – 19th Feb 2020 – pre-arranged leave) working on a three-day per week basis the handover period was very limited.

The retention of the Senior Cloud Forest Technician was advantageous in securing practical restoration skills which has been utilised to train the new recruits. Another set-back to the project has been the lack of detailed documentation with information of importance to the current project (e.g. fragment methodology) as well as practical knowledge of the locations of the fragments and experience of accessing the fragments in the field.

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

Whilst the Restoration Specialist was in post, corridor survey methodology was developed and trialled at two corridor sites. The trial was successful meaning not further amendments were required. Two corridor surveys were conducted: one at corridor 1 (Bellflower Ridge) and the other at Corridor 2 (Byrons to Taylors), the data is still to be analysed but an example of the raw data produced can be seen in Annex 4.1.

The fragment survey methodology was developed by the new Project Manager by adapting the methodology from the DPLUS029 Site Survey. The methodology has been trialled on four fragments with minor amendments required to streamline the method and to reduce complexity to enable field staff to continue the use the survey. One notable change is the use of one quantitative sampling method the DAFRO scale only, see Annex 4.5 for copy of survey sheet. *It should be noted that the methodology for the survey is still to be documented.*

1.4 St Helena staff trained in nursery scheduling and managing production work flow

Project staff have been trained in best practise propagation techniques and have had insight into work managing production, through the delivery of training by the SHG Nursery Charge hand. Training involved: developing an understanding of the seasonal availability of suitable germplasm for propagation; collecting, preparing and sowing germplasm and then managing production workflow through continued seedling aftercare until plants have established adequately to the planting stage.

Training has been completed on a one week rotational placement in the nursery as well as during periods of wet weather when site access is unsuitable due to increased risk of slips and falls and damage to sensitive habitat.

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

Cloud Forest Survey Skills established under DPLU029 were lost with the resignation of the former Project Manager and the Restoration Specialist, however there is reasonable experience and understanding within the Project Team to continue to conduct surveys, analyse the data and monitor progress.

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

During the period of employment of the former Project Manager and Restoration Specialist, 23 fragments and three corridors were prioritised for Year 1 of the Project. Work has commenced at all fragments and corridors, see annex 4.3 & 4.4 for map of work areas and fragments. Work involved:

- Clearing suitable access routes (over-grown by invasives) to sites, with minimal disturbance to decrease invasive colonisation
- Visual inspections of fragments to identify invasives requiring removal within a 2-5m radius of the focal tree where possible. *Some sites have focal trees growing on the edge of steer cliffs meaning work is not possible as it increases health and safety concerns. Focal trees were identified under DPLUS029 as the remaining wild individuals from which colonial material has been derived and planted in the Living Gene Bank.*
- Invasive removal using the Invasive Clearance Protocol developed under DPLUS029
- Restoration planting of a mixture of endemic species; supplementing existing endemic trees with younger more genetically diverse seedlings.

Unfortunately, there has been very little mapping of the fragments visited and worked during Year 1 of the Project. Reliance of mapping was on the knowledge of the Restoration Specialist who was familiar with the locations from the previous project DPLUS029. Following the loss of the Restoration Specialist

the existing project team has recorded, cross referenced and trialled surveys at four fragments. Survey and mapping work has however, been hindered by the pro-longed wet weather experienced, which limits safe site accessibility. Once the weather improves all working sites will be mapped.

Additional fragments and corridors have been identified for prioritisation during Year 2 of the Project.

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

Fixed survey plots per fragment pivots on the focal tree species and with data being recorded in a 5 meter radius. The DAFOR scale has been adopted for fragment surveys.

For the corridors GSP co-ordinates were taken at the start and end of the corridor as well as each directional change. These co-ordinated will be used as the fixed point for each subsequent survey.

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

Unfortunately drone flying skills were loss following the resignation of the former Project Manager. Project staff have however, engaged in a basic training and drone introductory course (7th February 2020) delivered by St Helena Government's Technical Services Section as well as operational flying training delivered voluntarily by a local drone pilot (13th & 20th March 2020). Following these sessions project staff have conducted self-training (28th Feb & 6th, 19th, 31st March) to develop competence in drone piloting for photographic surveys. Training is on-going and has been hindered by poor weather conditions.

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

Invasive clearance in compliance with the Invasive Clearance Protocol has been undertaken at all 23 fragments sites and at the three corridors.

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

Bi-annual surveys have not been conducted following the resignation of experienced staff. However, vegetation survey trials have yielded success and the methodology will be utilised for future surveys.

No invertebrate surveys were delivered during Year 1 of the Project, as entomologists (SHNT) did not have the capacity to undertake these. Capacity did however allow for the completion of a non-destructive method trial, which was successful. Commissioning invertebrate surveys will be a priority over the next month.

Drone surveys will also be prioritised as soon as more favourable weather is experienced.

2.5. Analyse survey data and photo comparison

Botanical surveying has been slow to commence as the methodology was not readily available. Following the development of methodology two corridors surveys have been conducted the results of which are still to be analysed (raw data can be seen in Annex 4.1). Four fragments were also used to trial fragment surveys during April, the survey form can be seen in Annex 4.5.

3.1 Plan, arrange and host workshops & 3.3 Collaborate with Ascension Island Conservation and St Helena Conservation to arrange an exchange visit between staff members from both organisations

Arrangements had commenced for the exchange to take place during Year 2 of the Project however, due to covid-19 travel restrictions these arrangements have been postponed and will be revisited at a later date.

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

Not completed during Year 1 of the Project, will commence and continue over the life of the Project.

3.2 Progress towards project Outputs

Outputs:

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

All Conservation Workers (five) have been trained in best practise invasive clearance techniques as per the Invasive Plant Clearance Protocol, established under DPLUS029. Staff have quickly developed invasive best practise techniques and can competently undertake invasive clearance across the Cloud Forest, this is evident in probationary reviews. The existing team consists of:

Project Manager (Part-time)	Sasha Bargo	-
Senior Conservation Technician	Ross Henry	Probationary period passed 2nd December 2019 (6month)
Conservation Technician	Michael Johnson	Probationary period passed 2nd December 2019 (6month)
Conservation Technician	Wayne Leo	Probationary period passed 27th February 2020 (6month)
Conservation Technician	Brendan Leo	3 month probation period passed 11th February 2020
Conservation Technician	Bert Leo	3 month probation period passed 11th February 2020
Conservation Technician	Simon Scipio	3 month probation period passed 1st March 2020

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

No staff training has been undertaken in nursery scheduling to present, as this process has not yet been developed for the nursery. Since the nursery was equipped with a dedicated Nursery Officer (2018) and an Assistant (2019), propagation methods and techniques were trialled and developed to increase the success of good quality stock for restoration planting. *(It is important to note that 9-12months is required to produce plants of a suitable stature for restoration plantings).* Improved methods have been successful in yielding larger numbers of endemics, and has been especially successful for the Critically Endangered False Gumwood, with more than 1000 seedlings in mid-propagation stages compared to the smaller propagation success in recent years. This success could be a result of the presence of more genetically diverse germplasm being available for propagation from within the Living Gene Bank (established under DPLUS029). Although this particular species has seen successful, propagation techniques are still to be perfected for other species for example the Critically Endangered Large Bellflower which has yielded large germination success but often result in stem-rot during the later hardening of stages.

As propagation techniques are continuing to show success in the production of a large number of good quality stock, the next step would be to understand the demand for plants required for restoration plantings, to feed into the development of nursery scheduling.

Current propagation is often limited to the flowering sessions of endemic plants. The practise has been to collect suitable germplasm when in season. For some species this occurs once yearly, with reduces continuous propagation. To improve the availability of germplasm as well as stock grown all year round, there is opportunity to develop a partnership with the Species Team (SHG) to store and request germplasm outside flowering seasons.

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

No stakeholders have been trained in habitat assessment techniques due to the slow start of the project resulting from the loss of two key staff and the lack of information/documentation available. The recently adapted methodology for fragment surveys was developed from the DPLUS029 site survey methods. This existing methodology provides for the surveying of different biotic and abiotic habitat features; meaning the methodology can be further adapted for habitat assessment. Once preliminary methodology has been established then a trial, followed by error/gap rectifying can be completed, before training can commence.

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

2.1. ~20 project work areas defined, and habitat fragments prioritised during the first Quarter, incorporating >60% of the 115 existing DPLUS029 sites

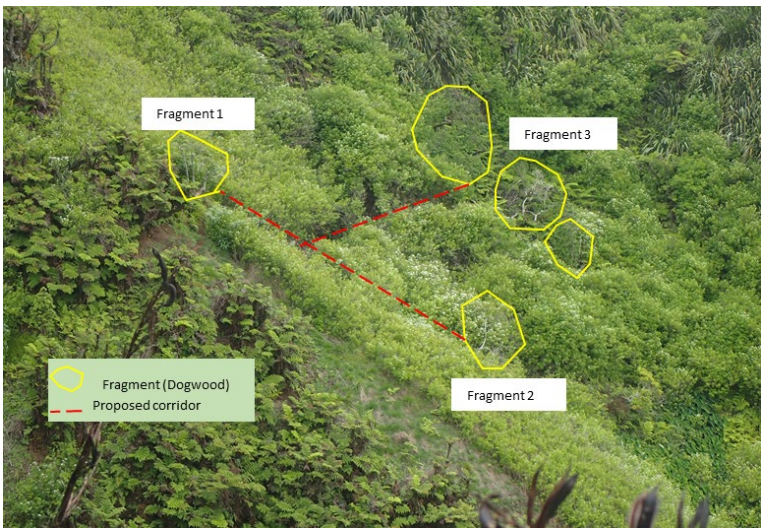
During the period of employment of the former Project Manager, eight work areas (supporting several fragments) were prioritized for Year 1 of the Project, see below table:

Work Area	Focal Tree(s)	Number of Fragments
Jockies	Whitewood	2
	He Cabbage	2
	Dogwood	3
	Whitewood & Dogwood	1
Wells	Dogwood	4
Taylors	He Cabbage	3
Byrons	Whitewood	2
High Peak	Whitewood	1
	Dogwood	1
	He Cabbage	1
Mount Vesey	False Gumwood & Redwood	1
Cuckold's	Whitewood	1
High Ridge	He Cabbage	1

Year 2 of the Project aims to continue work at the existing fragments from Year 1 as well as focus on additional fragments at High Ridge and new fragments at Lower Actaeon & Warrens.

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

During Year 1 of the Project four corridors were identified, two have been defined, planted and surveyed; the Bellflower Ridge corridor with the help of SHG recurrent team. Work on the third corridor commenced (invasive clearance only) at Wells, through a two-part linking approach, see diagram below:



The proposed corridor on the South facing slope of the Cloud Forest in the New Foundland Area has been discarded as the area proposed expands >140m across an uneven steep slope (>60-70^0) which is difficult to work and increases the health and safety risk, especially under wet conditions. Additionally, the large area of this corridor would require a large investment of time and resources (plants) which would reduce the time available for other work.

Further corridors will be prioritised in Year 2 following fragment inspections.

2.3.1Botanical baselines set by Quarter 3 in Year 1 of the project

No botanical baselines were established before works commenced at Project sites, due to resignations (Project Manager then the Restoration Specialist) and overseas leave (Restoration Specialist) of key staff. Methodology has been adapted, trialled and improved from DPLUS029 site survey methodology, see 3.1 above. When weather conditions are more favourable, allowing safer access to Project Sites field staff will be trained in the surveying techniques.

2.3.2 Invertebrate baselines set by Quarter 3 in year One of the project

No baselines have been establish due to limited capacity by the Invertebrate Team (SHNT) to deliver works. A trial methodology survey was conducted, and works to commission the delivery of work will be prioritised over the next month.

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

A recent review of Invasive Plant Clearance Protocol has been undertaken and additional species added, see outcome review 3.3.

2.5.1 Annual botanical surveys completed

Not completed, but will be prioritised, see above output 2.3.1.

2.5.2 Annual invertebrate surveys completed

Not completed, but will be prioritised, see above output 2.3.2.

3.3 Progress towards the project Outcome

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

A revision has been undertaken for the existing nine invasive plant species, no major changes have been made.

0.2 Develop Invasive Plant management protocols for 5 additional priority invasive species by the end of Year 1

Invasive best practice methods for the clearance of five additional species have been added to the Invasive Plant Clearance Protocol. The five additional species include:

- New Zealand Flax
- Maritime Pine
- Blackberry
- Raspberry
- Sour Bulb

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

The Clearance Protocol was not included in the Peaks Management Plan before being approved by elected members of council, in September 2019. However, the protocol can be used alongside the Implementation Plan.

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

Funding for a Biodiversity Action Plan was not secured after a Darwin Application failed to be submitted. This outcome is very unlikely to be delivered without suitable funding.

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

Outcome to be achieved across the life of the project. The table below provides a list of native species associated with the Cloud Forest Habitat.

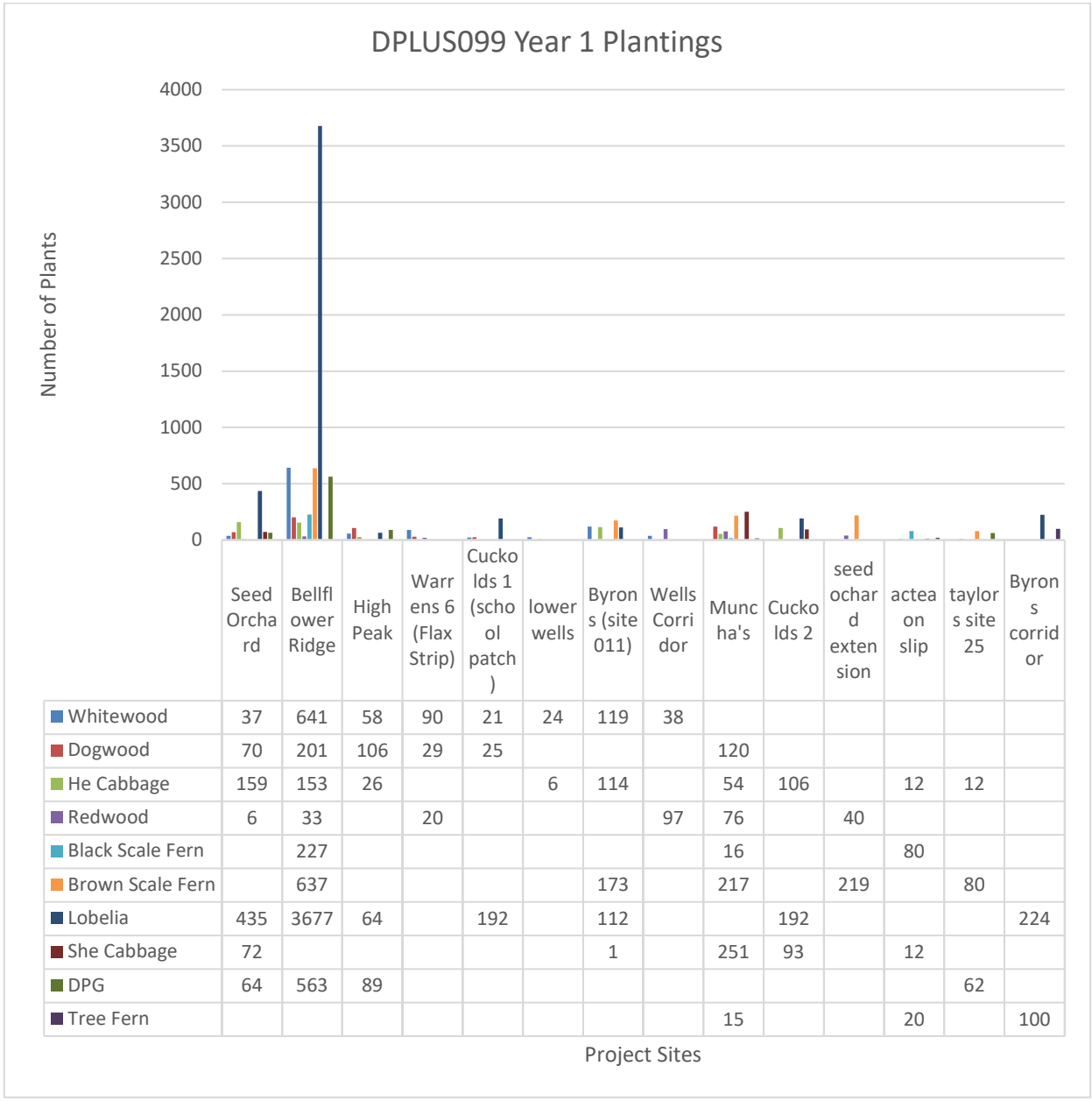
Common Name	Scientific Name	Status	Used in plantings
Buck's-horn	Lycopodiella cernua	Native	N
St Helena Filmy Fern	Hymenophyllum capillaceum	Endemic	N
St Helena tree fern	Dicksonia arborescens	Endemic	Y
Plastic Fern	Asplenium compressum	Endemic	Y
Hen-and-chicks	Asplenium lunulatum	Native	N
Sickle fern	Asplenium platybasis var. platybasis	Endemic	N
Comb fern	Pteris dentata ssp. Flabellata	Native	N
Lays back fern	Pteris paleacea	Endemic	N
Sticky fern	Hypolepis villoso-viscida	Native	N

Black Scale fern	Diplazium filamentosum	Endemic	Y
Large Kidney Fern	Dryopteris cognata	Endemic	N
Small Kidney Fern	Dryopteris napoleonis	Endemic	N
Common tongue-fern	Elaphoglossum conforme	Native	N
Toothed tongue fern	Elaphoglossum dimorphum	Endemic	N
Mossy fern	Elaphoglossum furcatum	Endemic	N
Veined tongue-fern	Elaphoglossum nervosum	Endemic	N
Brown scale Fern	Pseudophegopteris dianae	Endemic	Y
Plume Fern	Christella parasitica	Probably Native	N
Spotted tongue-fern	Pleopeltis macrocarpa	Native	N
Dwarf tongue-fern	Grammitis ebenina	Endemic	N
Large Jellico	Berula bracteata	Endemic	N
Small Jellico	Berula burchellii	Endemic	Y
Large Bellflower	Wahlenbergia linifolia	Endemic	Y
Diana's Peak Grass	Carex dianae	Endemic	N
Lobelia	Trimeris scaevolifolia	Endemic	Y
Dogwood	Nesohedyotis arborea	Endemic	Y
Redwood	Trochetiopsis erythoxylon	Endemic	Y
He Cabbage	Pladaroxylon leucadendron	Endemic	Y
She Cabbage	Lachanodes arborea	Endemic	Y
Black Cabbage	Melanodendron integrifolium	Endemic	Y
Whitewood	Petrobium arboreum	Endemic	Y
False Gumwood	Commidendrum spurium	Endemic	Y

Current restoration plantings are heavily dominated by tree species, due to their increased availability as a result of the discovery of enhanced propagation techniques. The planting of ground cover species is less regular (e.g. ferns) as propagation techniques are still to be perfected. Additionally, one of the major ground cover species the Diana's Peak Grass, has been lost from restoration plantings due to a management decision to immediately stop propagation because of concerns about hybridisation. The loss of the effective ground cover plant has resulted in more time being utilised for maintenance, as alternative ground cover plants (e.g. Lobelia and ferns) are not as effective at suppressing invasives.

With the existing compliment of species used in restoration plantings 44% representation is provided in total, however, not all sites are suitable to support all species. For example, peaty wet sites would not support the false gumwood or large bellflower as the constant saturation would result in stem-rot. Thus, the species compliment per site is more likely to be 30-40%. Considering the aforementioned percentage it is unlikely that >70% species compliment will be achieved unless propagation techniques are enhanced to increase fern numbers.

Graph below shows planting for Year 1 of the Project.



	Seed Orchard	Bellflower Ridge	High Peak	Warrens 6 (Flax Strip)	Cuckolds 1 (school patch)	lower wells	Byrons (site 011)	Wells Corridor	Munch a's	Cuckolds 2	seed ochard extension	actea on slip	taylors site 25	Byrons corridor
Whitewood	37	641	58	90	21	24	119	38						
Dogwood	70	201	106	29	25				120					
He Cabbage	159	153	26			6	114		54	106		12	12	
Redwood	6	33		20				97	76		40			
Black Scale Fern		227							16			80		
Brown Scale Fern		637					173		217		219		80	
Lobelia	435	3677	64		192		112			192				224
She Cabbage	72						1		251	93		12		
DPG	64	563	89										62	
Tree Fern									15			20		100

0.5 100% of habitat corridors have improved vegetation type quality in terms of native species abundance and species richness

Work has commenced at three corridors (Bellflower Ridge, Byrons to Taylors and Wells), involving:

- Clearance of invasive species following the Invasive Clearance Protocol
- Corridor survey
- Planting a mixture of species

Work (e.g. invasive maintenance and supplementary planting) will continue at the three corridors throughout the life of the Project and will be replicated to additional corridors.

In terms of reaching the target of 100% all corridor work will create improved habitat during the initial works however, regular maintenance will be required to ensure the 100% is maintained.

3.4 Monitoring of assumptions

Assumption 1: Outcome 0.3 Peaks Management Plan will be completed by the end of April 2019

Comments: Following several rounds of expert consultation and one round of public consultation the Peaks Management Plan was completed June 2019 and endorsed by elected members September 2019. This Invasive Clearance Protocol was not included in the Plan.

Assumption 2: Outcome 0.4 St Helena Biodiversity Management plan will be completed during the project life time.

Comments: an application for round 8 of the Darwin Plus funded was not submitted. Without funding it is unlikely that a Biodiversity Management Plan will be developed.

Assumption 3: Outcome 0.5 & 0.6 Weather allows surveys and drone operation to be carried out in a timely fashion

Comments: the recently experienced wet weather has hindered surveys (botanical and drone) however, this factor alone does not account of minimal progress towards this outcome. The completion of surveys were also hindered by the loss of key project personnel (with drone piloting skills) and the lack of readily available methodology. It is unclear why survey methodology was not prioritised during the first few months of the Project. Following the resignation of the former Project Manager the development of methodology fell to the Restoration Specialist. However, the long period of overseas leave followed by resignation, resulted in a small amount of time being available for the development of methodology.

Methodology is now been developed.

Assumption 4: Outcome 0.6 Permission is granted from the Air Access Authority to operate drone in the Restricted Fly-Zone.

Comments: initial communication with St Helena Airport informed that permission is required to fly a drone via application for each day flights are planned. No surveys have been conducted on the Peaks as staff still working toward developing competence to fly. A drone trial survey was planned for April however, poor weather conditions prevented this. Permission to fly will be requested when the weather improves.

Assumption 5: Output 1 Attendance levels as expected.

Comments: no training has been delivered at present outside of the Section, newly recruited staff have been trained in invasive clearance and nursery production. This assumption is still valid.

Assumption 6: Output 2 Fieldwork conditions, especially in remote and difficult and steep terrain, are dependent on clear weather conditions.

Comments: wet conditions during the past three months (Feb-April 2020) has been very unpredictable. Similar conditions were experienced last year which has hindered fieldwork, due to increased health & safety risk and habitat damage.

Assumption 7: Output 2 Specialist entomological expert is available.

Comments: this assumption did not hold through as there was no capacity during the first year of the Project for the SHNT Invertebrate Specialists to undertake survey works. However, a trial non-destructive methodology was completed.

Assumption 8: Output 3.1 & 3.3 SHG and ASCG grants permission to enable exchange visits and **assumption 10** Attendance at workshops

Comments: arrangements were being processed for the exchange visits between territories for Year 2 of the Project, however all arrangement have been post postponed due to covid-19 concerns and travel restrictions. At present there is great uncertainty across the world about travel, hence an alternative date for the exposure has not yet been identified.

Assumption 9: Output 3.2 EMD nursery open days continue to take place on a yearly basis

Comments: this assumption is not realistic as EMD nursery open days occur biennially, with the next Open Day planned for 2020. However, due to covid-19 concerns the open day has been postponed until 2021.

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

There was one impact identified in the original application:

i) Directly addressing one of the biggest threats to St Helena' endemic habitats - invasive non-native species

by;

- pursuing new and innovative approaches that have shown great promise on a small scale and could be “game-changing” in achieving ‘more for less’ and having a strong potential to be replicable elsewhere, e.g. the larger scale invasive problems across the forestry estate and agriculture sectors.
- Increasing species richness and genetic diversity across the highest priority endemic habitat fragments. The project will strengthen habitat resilience needed to mitigate against potential

impacts linked to global warming that could trigger population decline or species collapse if diversity is not preserved and or improved.

- Promoting conservation of the island's primary water capture resource through advancing ecologically sound restoration techniques to bolster rare native habitats in the cloud forest which sequester moisture from orographic cloud and store it for later release from deep peaty soils acting in effect like a wet sponge.
  In addition to this essential ecosystem service function, this wetland system is unique in holding the majority of native species in one place, making up nearly a third of all the endemic species found across the UK and its OTs.
- Developing data resources and better defining and mapping habitat fragments of biodiversity priority to inform biodiversity action and management plans.

Project contribution to the higher-level impact on biodiversity conservation has been towards the recently endorsed Peak National Park Management Plan. The Peaks National Park is one of the defined National Conservation Areas under local law, the Environmental Protection Ordinance 2016. Works being undertaken on this project contributes directly to the actions in the biodiversity pillar, with added benefits toward the other two pillars: water security and climate change resilience and socio-economic of the implementation plan.

In relation to the higher-level impact on human development and wellbeing, the project has recruited five persons from the wider island to conservation. These persons were recruited from various private industries (e.g. building construction, catering, animal husbandry) which at the time suffered from limited operating capacity following the completion and cancellation of a large construction project; Construction of St Helena Airport and the accompanying infrastructure. Securing these additional staff increases the local capacity and knowledge through the provision of on the job training of innovative techniques used for cloud forest conservation. At the end of the Project these staff will be better equipped to apply for future conservation related jobs.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

The project will contribute to the following National Goals for Sustainable Development:

- Build on previous Darwin Project DPLUS029 'Securing St Helena's rare cloud forest trees and associated invertebrates' project.
- Contribute to the St Helena Island 10 Year Plan 2017 – 2027 national goal "Altogether Greener"
- Contributes towards the Sustainable Economic Development Plan (SEDP) 2018-2028 – Vision and Goals 3. Attract Visitors and Increase Tourism and 6. Sustain and improve our Natural Capital
- Environment, Natural Resource & Planning (ENRP) Strategic Priority; 'Protect the natural environment by conserving biodiversity, preventing, minimising or mitigating against any negative activity and or impact, to conserve and enhance the Island's natural capital' and 'increasing our capacity to safeguard natural habitats and save critically endangered species'

5. Project support to the Conventions, Treaties or Agreements

The project supports the Convention on Biological Diversity Aichi, working towards Strategic Plan 2011-2020 Goals:

- Strategic Goal B targets:
  - 5 – the project aims to reduce habitat loss and degradation of cloud forest through the removal of invasives and developing ecological corridors to increase connectivity.
  - 7 – land not harvestable by forestry (although previously planted for timber) is slowly being reclaimed on the Peaks, an example being the sectional removal of a stand of maritime pine to extend the Living Gene Bank.
  - 9 – presence of an Invasive Clearance Protocol developed under DPLUS029; which is periodically reviewed and up-dated.
- Strategic Goal C targets:
  - 11 – some of the project sites alongside the work of the recurrent SHG team contributes to enhancing an eco-system services, namely improved water capture. The sites that contribute to water catchment areas, include: Taylors (feeding Grape Wine Gut) and Byrons & Wells (feeding Wells). Both catchments are utilised all year round for the provision of domestic water. The work follows evidence from DPLUS051, which identified endemics being better suited to water sequestration compared to invasives.

- 12 – contributing towards a reduced extinction risk of critically endangered species such as the, False Gumwood through successful propagation of plants to a suitable planting stage. Planting will be trialled across suitable project sites to increase the numbers of trees, which are currently restricted to only 6 wild individuals.

- Strategic Goal D target:
  - 14 – see above Goal C, target 11.
- Strategic Goal E target:
  - 19 – training as well as an exposure will be offered as part of the Project, to transfer skills, knowledge and experience.

6. Project support to poverty alleviation

The Project offers indirect support to poverty alleviation, by:

- Improving water capture from mist sequestration of low forming clouds. The results from DPLUS051 outlined that 38% of the drinking water originates from just two of the nine water catchments on the Peaks; Grape Wine Gut and Wells. Project work is being undertaken in these catchments to restore native habitat, which is more efficient at filtering water into underground aquifers. The establishment of additional native habitat therefore, helps to alleviate the predicted severe impacts of climate change (e.g. reduced rainfall).
- Improving the visitor and research potential. The Peaks provides a socio-economic product, where visitors are able to view the unique endemic biodiversity first hand. As the island anticipates increased tourism the increased distribution of native habitat would sit as a visual part of the landscape, which is often photographed. Furthermore, the increased availability of native habitat has potential to encourage research opportunities.

7. Consideration of gender equality issues

There is a very large gender divide in Cloud Forest Conservation; the gender is dominantly male. The existing Cloud Forest Team (Project, Recurrent & Partner funding) consists of 15 staff members, only one is female (the Terrestrial Conservation Officer TCO). Very little interest (one female during Project recruitment) has been shown from females willing to complete field based roles. The likely cause of this large gender divide is the lack of facilities (e.g. toilets, electricity & running water) at the work site, that most employees would expect. Work experience students (females) have trialled working under these conditions but found the lack of facilities particularly uncomfortable.

To encourage a greater interest from females the provision of facilities would be best to consider.

8. Monitoring and evaluation

The responsibility for M&E lies with the Environmental Management Division (EMD), and more specifically the Project Manager. M&E of fieldwork (e.g. invasive clearance and restoration planting) is being monitored through weekly up-dates from the Senior Restoration Specialist on field work.

No steering group has been established at present, but will be established over the next few months to support M&E on a monthly basis. It is envisaged that the steering group would have both technical and financial oversight of the project. Once the provisions for the Project Manager are finalised and staff retention stabilises, additional work sites and corridors can be investigated and prioritised.

All information (mapping, protocols, lessons learnt) generated on this project will be shared with partners and stakeholders both internally and externally, and the final documentation and results will be housed on SHG's internal shared server for future access. Information from previous projects has been very difficult to identify due to lack of organised filing or failure to up-load to the shared area. To prevent a similar impact in future a file trail will be documented and information supplied to key partners:

- SHG GIS Section – using their data structure and process
- SHG Research Institute – for distribution to researchers or partners/stakeholders

Fragment and corridor surveys designed and initiated across the life of the project will continue to yield results during and after the completion of the project, through collaborative work and training of existing recurrent (permanent) staff.

9. Lessons learnt

One of the biggest lessons learnt is reduced reliance on staff for project delivery. Following the loss of key staff (former Project Manager & Restoration Specialist), the underlining understanding of the project, key skills (surveying and drone flying) and experience (mind-map of project sites) was also lost. The issue was heighted as limited information was supplied before resignation, which resulted in a delay to the project for staff continuing the management and delivery. The lesson is one for senior management to ensure suitable documents and file paths are available for new persons continuing roles.

The delay in recruiting and securing a Project Team has resulted in some outcomes and outputs being partially achieved. During the development of the logical framework SMART targets should have been considered to take into account: the time required for organisational recruitment processes and planning for potential delays (e.g. several recruitment rounds before securing a team). Some recruitment factors (e.g. resignations of key staff) were unpredictable and although this caused delays, the Project has still continued using existing staffing capacity. A recruitment round for a new Project Manager was held 21st April 2020, the results of which are still to be finalised.

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

N/A

11. Other comments on progress not covered elsewhere

Four Conservation Technicians (Wayne Leo, Brendan Leo, Bert Leo & Michael Johnson) completed an Emergency First Response course on 29th November 2019, this has developed staff skills and understanding of the response to treat minor accidents in the field. This is hugely valuable as there are no main road access to the working sites and enables staff to administer first aid until professional treatment can be sourced.

One of the Conservation workers (Michael Johnson) completed a four day internally recognised Train the Trainer Course, during November 2019. Michael successfully passed the course and was also awarded an additional merit for the delivery of the best micro-teach session. The skills learnt from this course will be instrumental in delivering training under output 1.

Field staff have also assisted the SHNT Invertebrate Team conducting surveys outside the scope of the project to improve their invertebrate identification skills and develop a familiarisation of non-damaging invertebrate surveying techniques.

12. Sustainability and legacy

Minimal project promotion work has been undertaken during Year 1 of the Project, as a result of limited available time of the Project Manager (working on a part-time basis).

Two promotional opportunities arose during Year 1:

- Rising awareness of the Project during the biennial careers fair on the 9th October 2019, this event sparked interest from elected members for a familiarisation visit to the Peaks to showcase all works being completed.
- A familiarisation visit was held on 21st February 2020 for the Island's Councilors. This provided the opportunity for all staff to showcase the works being completed and share information about the value of the Peaks at a national and global level. A press release was issued on 5th March summarising the visit.

13. Darwin identity

Internal documentation (e.g. Invasive Clearance Protocol) carry the Darwin logo as well as the logos of partner organisations. All future documents, publications and presentations will show the Darwin logo.

The Darwin Project is currently being delivered as a distinct project alongside the recurrent team. However, provision will be made for cross-training for recurrent staff.

Several Darwin Projects have been completed over the years on St Helena; helping to establish an already existing awareness of the Initiative. With the majority of the Darwin Projects being delivered in the conservation section (public and charity), recognition exists between fellow colleagues, partners and stakeholders.

14. Safeguarding

St Helena Government have established processes and procedures already in place as a means of safeguarding employees; an overview can be found in the Staff Handbook, which condenses the information in the Code of Management.

15. Project expenditure

A change request was submitted on 12th December 2019 and was approved 28th February 2020. The agreed changes to expenditure as per change request are used in the below table.

Table 1: Project expenditure during the reporting period (1 April 2019 – 31 March 2020)

Project spend (indicative) since last annual report	2019/20 Grant (£)	2019/20 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)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
Impact Invasive plant species are managed sustainably at a national level, improving livelyhoods through improved native biodiversity and water security, improving our tourism product and natural capital		Invasive plant species management as per Clearance Protocol, has been carried out at 23 fragments, on both the south and north facing slope of the central ridge. This has involved invasive clearance within a 2-5meter radius around focal trees or expanding existing radiuses. Work has also commenced at three corridors, two on the north facing slope and one on the south facing slope. Project sites that are located in water catchment areas, include: Taylors (feeding Grape Wine Gut) and Byrons & Wells (feeding Wells). . Invasive plant management increases the distribution of native habitat which forms part of the visual landscape, often photographed by tourists.	
Outcome 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 0.2 Develop Invasive Plant management protocols for 5 additional priority invasive species by the end of Year One 0.3 Inclusion of Clearance Protocol in Peaks Management Plan by end April 2019 0.4 Adoption of Clearance Protocol in Biodiversity Management Plans by end March 2022 0.5. Native biodiversity species number increased across priority project areas to hold >70% of total peaks species compliment 0.6 100% of habitat corridors have improved vegetation type quality in terms of native species abundance and species richness	Completed, minor changes made to document. Complete five additional species added (New Zealand Flax, Maritime Pine, Blackberry, Raspberry and Sour Bulb. Not included in Peaks Management Plan, but will be referred to in Implementation Plan. Funding was not secured for the development of a Biodiversity Management Plan. Only 44% of total species compliment is currently being used in restoration plantings the majority comprises of tree species. Ferns are under-represented due unsuccessful spore trials. All corridors will have initial improved vegetation following invasive clearance and planting; regular monitoring and maintenance will be required to ensure 100% is up-hold.	0.1 & 0.2 annual review an addition of further invasives as required Ensure Protocol is referred to and utilised in the delivery of the Peaks Management Plan No existing capacity to develop an application for funding Biodiversity Management Plan, no further action Experiment with different methods for fern propagation from spore. Regular monitoring and maintenance of Year 1 corridors and identification and commencement of works at additional corridors throughout the life of the project.

Output 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 1.2. Ten staff trained in nursery scheduling and optimum production workflow 1.3. 15 stakeholders trained in habitat assessment techniques (year One) and timing/scheduling/programming of restoration follow-up visits (year Three)	No wider training (outside department) has been delivered at this stage as training has focused on the new Project staff. All new recruits have undertaken on the job training in best practise field techniques which they can competently deliver and have also completed nursery propagation training, see Annex 4.1 for photographic evidence of training. Training/workshop will be planned for the wider community at a later stage and will be dependent on covid-19 restrictions. Habitat assessment training has not yet commenced due to lack of methodology available, there is however the possibility to utilise and adapt the fragment survey methodology for the purpose, see annex 4.5.	
Activity 1.1 Write Job profiles, devise recruitment panel, prepare job adverts, and advertise posts		Job profiles were created, evaluated by the Job Elevation Committee (JEC), approved and recruitment undertaken. Two recruitment rounds were undertaken for Conservation Technicians. The former Project Manager and Senior Conservation Techician was identified and recruited from within the organisation. The Restoration Specialist was recruited from outside the organisation.	Although there was some instability following staff resignation, the current team seems to be settled and staff have developed good working relationships. Following the outcome of the Project Manager recruitment there could potential be soem salary underspend which would be utilised to secure additional field staff.
Activity 1.2 Recruit suitably experienced project personnel		The former Project Manager and Senior Conservation Technician was recruited from within the existing cloud forest conservation team and the Restoration Specialist recruited from private consultancy. The aforementioned are experienced in best practise cloud forest management and had experience from working on DPLUS029. Following the resignation of the Project Manager a recurrent staff member assumed responsibilities.	Utilise existing resources and undertake background research to continue the effectively delivery of the project. As key staff (former Project Manager and Restoration Specialist) have been loss there has been a delay in operational delivery.
Activity 1.3 St Helena staff trained in survey techniques, applied ecology and new clearance protocols		Training has only been delivered to new project recruits in clearance protocols.	Survey training for existing staff and wider training for interested persons will be planned and undertaken and will be dependent on covid-19 restrictions.

Activity 1.4 St Helena staff trained in nursery scheduling and managing production work flow		Training has only been delivered to new project recruits in nursery production.	Addition nursery training for existing staff and wider staff will be planned and undertaken during the existing and will be dependent on covid-19 restrictions.
Activity 1.5 St Helena staff gain experience in conducting surveys, undertaking new clearance techniques and managing better nursery work flow		Not completed during year 1.	Will be planned and undertaken during the existing life of the project, depending on covid-19 restrictions.
Output 2. Improved knowledge of applied ecology of vegetation succession enabling better scheduling of invasive alien plant control and restoration activities	2.1. ~20 project work areas defined, and habitat fragments prioritised during the first Quarter, incorporating >60% of the 115 existing DPLUS029 sites 2.2. Potential corridors to link priority habitat fragments defined during the first Quarter and prioritised according to habitat quality and suitability 2.3.1Botanical baselines set by Quarter Three in year One of the project 2.3.2 Invertebrate baselines set by Quarter Three in year One of the project 2.4. Clearance protocols implemented, efficacy evaluated, and techniques refined/adjusted by close of project 2.5.1 Annual botanical surveys completed 2.5.2 Annual invertebrate surveys completed	Work has commenced at 23 fragments within eight working areas during Year 1. Year 2 of the Project will continue work at the existing fragments as well as focus on additional fragments at High Ridge and new fragments at Lower Actaeon & Warrens. It is unlikely that 60% (69 fragments) will be worked on during the life of the Project. Four corridors were identified during the Year 1, work commence at all three however, work discontinued at one corridor due the site access concerns. Work will commence at existing corridors and additional corridors will be prioritised. No baselines were set due to lack of existing methodology following the loss of key staff. Methodology has now been adapted and surveys will commence when more favourable weather is experienced. No invertebrate surveys have been undertaken as there was no capacity from the Invertebrate Team. A trial method was tested and processes for contraction of consultancy services will be undertaken soon. Completed, a copy of the Clearance Protocol version 2.1 can be requested from sasha.bargo@sainthelena.gov.sh. See 2.3.1 See 2.5.2	
Activity 2.1. Collate existing knowledge and data and prioritise and map habitat fragments and corridors accordingly		Following the loss of key staff who held the existing knowledge this activity has not been achieved.	Work will be undertaken to map fragments (staff will been trained in GSP use) and a map outlining work sites will be developed.
Activity 2.2. Set fixed survey plots across selected priority fragments and corridors (project sites)		Surveys were not extensively completed due to lack of methodology following the loss of key staff. Methodologies have now been	Train staff to complete surveys and undertake surveys at existing and new sites.

		established and fixed point's e.g. focal trees or GSP points will be used for future surveys.	
Activity 2.3 Conduct surveys and establish baseline database including Drone photo grid of project sites		See 2.2 and loss of key staff resulted in the loss of drone flying skills, no drone surveys have been completed during Year 1.	Project staff have received training and are continuing to self-train to develop competence of drone flying before surveying works commence.
Activity 2.4 Undertake clearance across selected priority fragments and corridors (project sites)		Has been delivered across all work sites.	Continue activity throughout the project.
Activity 2.5 Conduct repeat surveys every six months, including drone photo grid of project sites		Baseline surveys are still to be obtained.	Undertaken surveys to develop baselines.
Activity 2.5. Analyse survey data and photo comparison		Insufficient data exists.	Once data is obtained analyse will be undertaken.
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 manage in the long run (ANRD, Tourism, Private landowners, general public, ASCI conservation & St Helena Terrestrial Conservation, and the wider conservation community)	3.1. Two workshops during year Two, one on St Helena and one on Ascension Island on habitat restoration and invasive plant management to maximise biodiversity benefit 3.2. Project presentations at the yearly EMD nursery open days 3.3. Work experience exchange between two members of staff from Ascension and St Helena conservation in the second year of the project 3.4. Increased local awareness through newspaper articles and quarterly radio interviews or segments. Project progress updates through SHG press releases and website	Arrangements were being processed for the St Helena exposure in May and the Ascension exposure in October 2020, however plans are on hold due to covid-19 restrictions. The next nursery open day will be delivered in 2021 (depending on covid-19 restrictions) during which time a Project presentation will be delivered. See 3.1. Two publicity opportunities arose during Year 1 of the Project; promotion at the Careers Fair and familiarisation visit for councils followed by a Press Release. Additional promotion will be completed for the remainder of the Project.	
Activity 3.1 Plan, arrange and host workshops		Arrangements were being processed for the exposure including workshop, however plans are on hold due to covid-19 restrictions.	Uncertain when this can be delivered due to covid-19 concerns, will be revisited later during the year.
Activity 3.2 Present & disseminate project information through newspaper articles, press releases, presentations, radio interviews		One press release was issue during Year 1 reporting on the elected members familiarisation visit.	Project publicity will be improved through additional press releases and

https://www.sainthelena.gov.sh/directorates/environment-natural-resources-planning/darwin-initiative		adding a Project overview to the SHG website Darwin Project page. /
Activity 3.3 Collaborate with Ascension Island Conservation and St Helena Conservation to arrange an exchange visit between staff members from both organisations	See above 3.1.	

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Invasive plant species are managed sustainably at a national level, improving livelyhoods through improved native biodiversity and water security, improving our tourism product and natural capital Max 30 words)			
Outcome: (Max 30 words) 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 0.2 Develop Invasive Plant management protocols for 5 additional priority invasive species by the end of Year One 0.3 Inclusion of Clearance Protocol in Peaks Management Plan by end April 2019 0.4 Adoption of Clearance Protocol in Biodiversity Management Plans by end March 2022 0.5. Native biodiversity species number increased across priority project areas to hold >70% of total peaks species compliment 0.6 100% of habitat corridors have improved vegetation type quality in terms of native species abundance and species richness	0.1 & 0.2 Revised Protocol document/s including new protocols for additional 5 species 0.3 Peaks Management Planning document made available on the SHG internal server and SHG web portal 0.4 Biodiversity Management Plan made available on the SHG internal server and SHG web portal 0.5 Bi-annual botanical and invertebrate surveys carried out in ~20 fixed sample plots in project priority habitat fragments; Drone footage 0.6 Drone footage of selected potential corridor areas	Peaks Management Plan will be completed by the end of April 2019 St Helena Biodiversity Management plan will be completed during the project life time. Weather allows surveys and drone operation to be carried out in a timely fashion Permission is granted from the Air Access Authority to operate drone in the Restricted Fly-Zone.
Outputs: **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 1.2. Ten staff trained in nursery scheduling and optimum production workflow 1.3. 15 stakeholders trained in habitat assessment techniques (year One) and timing/scheduling/programming of restoration follow-up visits (year Three)	1.1 Training attendance certificates and learning review report 1.2 Training attendance certificates and learning review report 1.3 Training attendance certificates and feedback forms	Attendance levels as expected

2. Improved knowledge of applied ecology of vegetation succession enabling better scheduling of invasive alien plant control and restoration activities	2.1. ~20 project work areas defined, and habitat fragments prioritised during the first Quarter, incorporating >60% of the 115 existing DPLUS029 sites 2.2. Potential corridors to link priority habitat fragments defined during the first Quarter and prioritised according to habitat quality and suitability 2.3.1Botanical baselines set by Quarter Three in year One of the project 2.3.2 Invertebrate baselines set by Quarter Three in year One of the project 2.4. Clearance protocols implemented, efficacy evaluated, and techniques refined/adjusted by close of project 2.5.1 Annual botanical surveys completed 2.5.2 Annual invertebrate surveys completed	2.1. GIS data layers and photographs available on the SHG GIS database and metadata shared through SAERI 2.2. GIS data layers and photographs available on the SHG GIS database and metadata shared through SAERI 2.3. Project database and survey field notes 2.4. Revised protocol document 2.5. Project database; survey field notes and photographs; data analysis	Fieldwork conditions, especially in remote and difficult and steep terrain, are dependent on clear weather conditions. Specialist entomological expert is available.
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. Two workshops during year Two, one on St Helena and one on Ascension Island on habitat restoration and invasive plant management to maximise biodiversity benefit 3.2. Project presentations at the yearly EMD nursery open days 3.3. Work experience exchange between two members of staff from Ascension and St Helena conservation in the second year of the project 3.4. Increased local awareness through newspaper articles and quarterly radio interviews or segments. Project progress updates through SHG press releases and website	3.1. Workshop proceedings, training attendance certificates and feedback forms 3.2. Presentation materials; photo evidence 3.3. Itinerary; Exchange visit reports. Photo evidence 3.4. Press releases; SHG web link; Articles	SHG and ASCG grants permission to enable exchange visits. EMD nursery open days continue to take place on a yearly basis Attendance at workshops

Activities

1.1 Write Job profiles, devise recruitment panel, prepare job adverts, and advertise posts
1.2 Recruit suitably experienced project personnel
1.3 St Helena staff trained in survey techniques, applied ecology and new clearance protocols
1.4 St Helena staff trained in nursery scheduling and managing production work flow
1.5 St Helena staff gain experience in conducting surveys, undertaking new clearance techniques and managing better nursery work flow
2.1 Collate existing knowledge and data and prioritise and map habitat fragments and corridors accordingly
2.2 Set fixed survey plots across selected priority fragments and corridors (project sites)
2.3 Conduct surveys and establish baseline database including Drone photo grid of project sites
2.4 Undertake clearance across selected priority fragments and corridors (project sites)
2.5 Conduct repeat surveys every six months, including drone photo grid of project sites
2.5. Analyse survey data and photo comparison
3.1 Plan, arrange and host workshops
3.2 Present & disseminate project information through newspaper articles, press releases, presentations, radio interviews
3.3 Collaborate with Ascension Island Conservation and St Helena Conservation to arrange an exchange visit between staff members from both organisations

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A	The five new Conservation Technicians have received training in invasive clearance and plant propagation.	5x males	British Overseas Territory Citizens	Combined 32months			32 months	

12A	Excel workbooks will be established for survey data			Not yet established			0	Two workbooks expected to be developed during the lifetime of the project to record botanical survey information
14A	Workshop to deliver training as well as include cross territory exchange	Unknown at present	British Overseas Territory Citizens	0				Planning dependant on covid-19 restrictions
20	Project Rover							
22	Fragments and corridors defined during the life of the project. Including the extension of the living gene bank.							
23	In-kind contributions of staff time and shared use of existing resources	2x Males 1x Female	British Overseas Territory Citizens					

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
Elected Members visit the Peaks National Park	Public Press Release	Sasha Bargo (Terrestrial Conservation Officer), 2020 Liam Yon (senior Press Officer), 2020			St Helena Government	
Peaks Management Plan *	Conservation Action Plan	Andrew Darlow (Consultant), 2019			St Helena Government	

Peaks Implementation Plan*	Implementation Plan	Multiple partner/technical advisor input, 2019-2020			St Helena Government (internal)	
Invasive Plant Clearance Protocol* (Revised - Version 2.1)	Organisational Protocol	Lourens Malan (former Terrestrial Conservation Officer), 2018 Andrew Darlow (Consultant), 2018 Sasha Bargo (Terrestrial Conservation Officer),2020			St Helena Government (internal)	
Corridor Survey Methodology*	Survey Methodology	Andrew Darlow (Restoration Specialist), 2019-2020			St Helena Government (internal)	
Fragment survey methodology*	Survey Methodology - *to be documented*	Sasha Bargo (Terrestrial Conservation Officer), 2020			St Helena Government (Internal)	
Staff Handbook*	Code of Management	Susan O'Bey (Chief Secretary), 2018 Barbara George (Head of Human Resources), 2018			St Helena Government (Internal)	
Project Staff Job Profiles*	Staff recruitment/job profiles	Lourens Malan (former Terrestrial Conservation Officer), 2019 Karen Thomas (HR focal), 2019			St Helena Government (internal)	
Staff probationary reports*	HR process of performance evaluation	Andrew Darlow (Restoration Specialist), 2019-2020			St Helena Government (internal)	

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	✓
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.	
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you want 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.	
Have you involved your partners in preparation of the report and named the main contributors	
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	