Darwin Plus Main & Strategic: Annual Report

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

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

Submission Deadline: 30th April 2025

Submit to: BCF-Reports@niras.com including your project ref in the subject line

Darwin Plus Project Information

Scheme (Main or Strategic)	Main
Project reference	DPLUS215
Project title	Assessing BVI habitat recovery from soil seedbanks following invasives removal
Territory(ies)	British Virgin Islands
Lead Organisation	Royal Botanic Gardens, Kew (Kew)
Project partner(s)	National Parks Trust of the Virgin Islands (NPTVI)
Darwin Plus grant value	£458,225
Start/end dates of project	01 April 2024 – 31 March 2027
Reporting period (e.g. Apr 2024-Mar 2025) and number (e.g. Annual Report 1, 2)	01 April 2024 – 31 March 2025 Annual Report 1
Project Leader name	Rosemary Newton
Project website/blog/social media	Kew project website: https://www.kew.org/science/our-science/projects/assessing-bvi-habitat-recovery Twitter/X: #DPLUS215 Facebook: National Parks Trust of the Virgin Islands
Report author(s) and date	Rosemary Newton (Kew), Nancy Woodfield-Pascoe (NPTVI), Tom Heller (Kew), Sara Barrios (Kew), Cassander Titley O'Neal (NPTVI), Stuart Cable (Kew) & Juan Viruel (Kew) 30 April 2024

1. Project summary

Great Tobago and Little Tobago are two uninhabited islands in the British Virgin Islands (BVI) that are designated national parks under the National Parks Trust Act, 2006 (Figure 1). Great Tobago is an Important Bird Area because of its regionally significant magnificent frigatebird (*Fregata magnificens*) population and a Tropical Important Plant Area due to the abundance of plant species of conservation importance, including the globally threatened regional endemic *Agave missionum*. Neighbouring Little Tobago also supports nesting seabirds including brown pelicans (*Pelecanus occidentalis*) and brown boobies (*Sula leucogaster*). Little data exists for flora and reptiles, due to the island's steep slopes which restrict access.

Feral goats have had devastating impacts on the native flora and fauna. Their effect on native seed production and seedling recruitment caused by overgrazing have also exacerbated erosion and led to increased landslides, destroying part of the habitat where the frigatebirds roost, as reported by the National Parks Trust of the Virgin Islands (NPTVI) over a 25-year period of visiting the Tobagos. In 2022, the Royal Society for the Protection of Birds (RSPB) received DPLUS196 funding to eradicate goats from these islands in collaboration with NPTVI and other partners. While removing goats would greatly reduce pressures on the local flora, it could also enable invasive plant species to proliferate. Thus, DPLUS196 also aims to eradicate the four known emergent plant invaders that pose the greatest current risk.

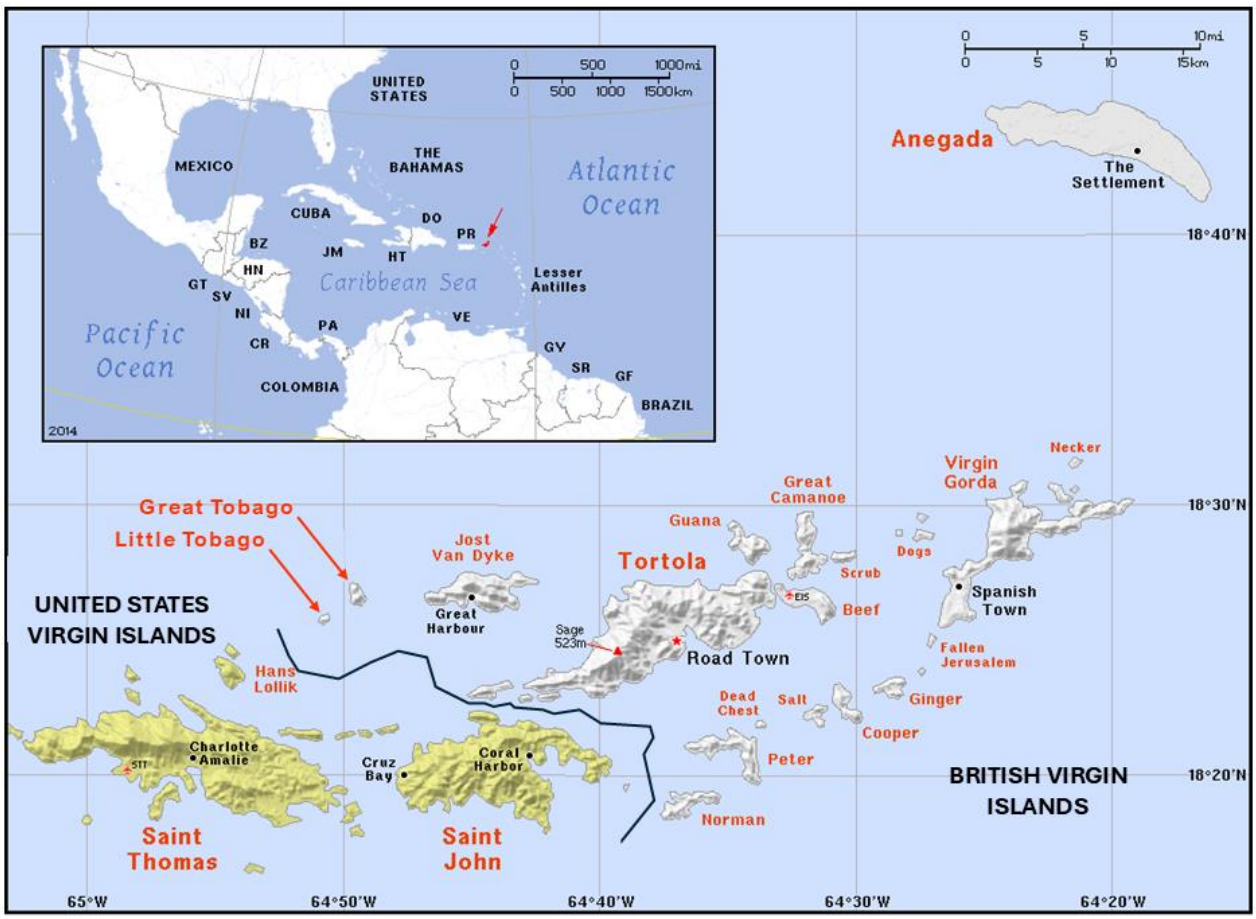


Figure 1. Map of the British Virgin Islands showing the position of Great and Little Tobago, modified from: https://ian.macky.net/pat/map/vg/vg_blu.gif

The soil seedbank is essential to the restoration of the native flora but is also a source of non-native plants. Soil seedbanks were successfully used to identify persistent non-native plant species in South Georgia requiring longer-term monitoring and control in DPLUS080. This project is using soil seedbank studies to determine which native and non-native angiosperm plant species are present on Great and Little Tobago.

This project will complement the reference DNA library for native plant species in BVI that is being developed by DPLUS183 by producing a reference DNA library for the non-native plant species found in BVI, which will be essential for the identification of emerging invasives on the Tobagos and other BVI islands. This expanded reference DNA library will support the activities of and synergise with DPLUS196 aimed at eradicating non-native species by comprehensively assessing the soil seedbank by applying techniques developed for DPLUS080.

DPLUS215 will build on DPLUS183 and DPLUS196 activities by informing a longer-term NPTVI invasive plant species management strategy to enable the recovery and reintroduction of native plants; significantly restoring and improving the biodiversity value and environmental condition and quality of these two National Parks.

2. Project stakeholders/partners

The main project partner (NPTVI) is also the primary stakeholder. NPTVI is the local authority responsible for managing designated national parks in BVI. Kew and NPTVI have jointly delivered numerous projects over more than 20 years. This project developed because of this productive partnership coupled with synergies with DPLUS183 and DPLUS196 and drawing on experience and learning gained from DPLUS080.

NPTVI have been directly involved with project design, implementation and co-ordination. A Steering Group consisting of Cassander Titley O'Neal (Director, NPTVI) and Nancy Woodfield-Pascoe (Deputy Director, NPTVI) and Stuart Cable, Tom Heller, Sara Barrios and Rosemary Newton (Kew) oversee all project planning and decisions and monitor and evaluate progress. Two formal steering meetings (Annexes 4-7) and two project meetings (Annexes 8-9) have been held during the past year. In addition, Rosemary Newton (project leader) and Nancy Woodfield-Pascoe (primary contact at NPTVI) have been in regular contact about project activities and progress both by email and Teams meetings.

The partnership is a supportive and collaborative one: For example, NPTVI asked Kew to manage the budget and payments of all UK expenses during Simeon Cabral's training visit in October 2024. This resulted in considerable savings as local knowledge enabled suitable accommodation to be booked at a much better rate than originally budgeted. Furthermore, discussions with NPTVI on the specifics of their training needs enabled additional training to be arranged for Simeon on basic arboriculture and nursery techniques while at Kew.

NPTVI regularly engages with local authorities to share updates of project progress (including related projects DPLUS183 and DPLUS196) and the importance of project Activities and Outputs for biodiversity management in BVI.

The RSPB (who is leading project DPLUS196) is not an official partner but is a stakeholder, as the results of this project will inform their development of the biosecurity plan and invasive plant seedbank control strategy.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1: Non-native plant species DNA sequence data for BVI generated and accessioned in secure collections

Following discussion with the project team on which data sources to consult, a non-native plant species list was compiled from several BVI plant species lists held by Kew and then checked against the Flora of the West Indies and the Plants of the World Online for non-native status (Activity 1.1). The non-native plant species list currently consists of 280 species (Annex 10, Means of Verification 1.1).

This list is currently being compared with the DPLUS183 native plant species list to ensure that there is no duplication of species between the two lists, and the availability of suitable Kew herbarium material for DNA sampling is being checked against this non-native plant species list to enable any gaps to be identified, which will then be sourced either from Kew's DNA and Tissue Bank, Kew's Living Collections, or from fieldwork activities planned for this coming year (Activity 1.2). This list (Annex 10) will be regularly reviewed and updated as more information on non-native plant species in the BVI is found.

Activities 1.3 and 1.4 commence in Y2 of the project.

Output 2: Database and reference document for all emergent native and non-native plant seedlings created to enable seedling identification

Sampling methods and protocols (Annex 11) were discussed and agreed with the team, and a Letter of Authority to work with BVI soil in the Quarantine House at Kew was obtained from the Animal and Plant Health Agency (APHA) on 19 August 2024 (Annex 12, Activity 2.1).

The first field trip to BVI by Tom Heller and Sara Barrios (Kew) resulted in the full 70 soil samples (5 replicates from 14 sites, Annexes 13-14) being collected from Great Tobago on 5, 10 and 11 June 2024 (Activity 2.2) with Keith Grant and Jahkoy Gordon from NPTVI, in addition to other planned DPLUS183 and DPLUS196 activities. The second field trip to BVI by Sara Barrios and Eloise Budd (Kew, Annex 15) resulted in the full 30 soil samples being collected from Little Tobago on 5 November 2024 (Annex 13, Means of Verification 2.2, Activity 2.2) with Nancy Woodfield-Pascoe, Simeon Cabral, Chane Smith and Dequand Leonard (NPTVI). Little Tobago is inaccessible by boat, and so a helicopter was required to get onto the island (Figure 2). This day trip enabled soil samples to be collected for DPLUS215 and two permanent vegetation plots to be set up as well as a plant inventory completed for DPLUS196 (Annex 16), saving on transport costs to the island.

Figure 2. The NPTVI and Kew team that visited Little Tobago by helicopter in November 2024

Great Tobago soil samples (with associated leaf litter) arrived at Kew on 3 September and Little Tobago soil samples arrived on 10 December 2024 (Annexes 17-18, Means of Verification 2.1, Activity 2.3). Soil samples were transported to Bay 8 of the Quarantine House where a thin layer of soil plus leaf litter was sown on a mixture of autoclaved compost and perlite combined in a 3:1 ratio.

Soil samples from all 14 Great Tobago sites from Replicates 1 – 3 (42 soil samples in total) were sown on 16 September 2024. Germination occurred rapidly, with seedling emergence observed within 5 days of sowing, and >50 seedlings observed in several seed trays. Replicate 4 soil samples were sown on 15 October 2024 by Simeon Cabral as part of capacity building (see Output 4). All of Replicate 5 soil samples were sown on 17 December 2024 excepting three sown on 3 January 2025. Replicates 1 and 2 of Little Tobago soil samples were sown on 10 January 2025. Sowing of the remainder of Little Tobago soil was delayed several weeks due to an outbreak of fungus gnats, the larvae of which appeared to be affecting the health of very young seedlings. Application of *Steinernema*, a biological control agent of fungus gnat larvae, in combination with sticky traps to capture the adult flies, successfully controlled the outbreak

allowing sowing of the remainder of Little Tobago soil samples (Replicates 3 – 5) on 25 February 2025 (Annex 13).

Emergent seedlings have been photographed to enable seedling identification (Activity 2.4) and larger seedlings are photographed before being harvested for DNA by placing individual seedlings in labelled teabags in a sealed silica gel box to rapidly dry (Activity 2.5). We have been able to distinguish more than 15 different species from seedling morphology so far. In total, at the end of the first year, 3,067 seedlings have been harvested for DNA.

Activity 2.6 is scheduled to commence in Y3 of the project.

Output 3: The risk of non-native plant species persisting and the potential for native plant species recovering from the soil seedbank quantified
Once completely dried, seedlings are no longer required to be treated as quarantine (Annex 19). Boxes containing seedlings were kept in the Quarantine House for at least a week to ensure completely dried before transporting them to the Jodrell Laboratory at Kew for accessioning in preparation for processing and DNA extraction (Activity 3.1). Activities 3.2 – 3.5 will commence in Y2 and Y3 of the project.

Output 4: Capacity built for soil seedbank monitoring to enable effective non-native plant species management; outreach activities undertaken to raise the awareness of invasive plant species
Terrestrial Warden Simeon Cabral (NPTVI) arrived on 6 October 2024 for two weeks of training at Kew. He spent the first week at Wakehurst in the Millennium Seed Bank and Wakehurst Nursery learning about seed collecting, storage and germination, and nursery techniques. The second week was spent at Kew Gardens in the Quarantine House, Herbarium, Jodrell Laboratory and with the Tree Gang in the Arboretum, learning about and participating in various activities related to the DPLUS215 project, including herbarium curation, soil seed germination and DNA extraction, as well as being trained in basic arboriculture techniques (Activity 4.1, Annex 20, Means of Verification 4.1).

The training was a great success as can be seen from the increase in knowledge and skills level from before the training (Annex 21) compared with after the training (Annex 22). This increase is especially evident in Simeon's Seed Conservation and Horticulture Skills and Knowledge, which he is now incorporating into his job (Annex 22).

Activities 4.2 – 4.4 will take place in Y2 and Y3 of the project.

A DPLUS215 project page was set up (https://www.kew.org/science/our-science/projects/assessing-bvi-habitat-recovery) and project activities and progress have been regularly disseminated via Twitter/X (Annex 23, Means of Verification 4.4) and Facebook (Annex 24) (Activity 4.5), A blog on the activities of the first year has also been published (Annex 25, Means of Verification 4.4).

3.2 Progress towards project Outputs

The first year of the project has been primarily focused on collecting soil samples and obtaining seedlings from these soil samples for molecular analysis and identification (which starts in Y2). The Output indicators remain suitable indicators by which progress towards the project Outputs can be determined. Good progress has been made in all the Outputs which suggests that we are on track to achieve all of them by the end of the project.

There is currently no molecular biobank for non-native BVI plant species (baseline condition). Progress towards Output 1 has resulted in the development of the non-native plant species list for BVI (Annex 10, Means of Verification 1.1) which will be used to source material to obtain DNA sequences for the known non-native plant species in BVI, to enable a non-native plant species biobank to be established.

The native and non-native plant species with a soil seedbank are currently unknown for the Tobago Islands in BVI (baseline condition for Output 2 and Output 3). More than 3,000 seedlings have been photographed and harvested for DNA analysis from the first field season in Output 2 (see Annexes 23-24 for evidence of these activities). These are being recorded in a database of emergent native and non-native plant seedlings from DPLUS215 soil samples from Great and Little Tobago, so that seedling identification can be verified both from morphology and using molecular methods.

Progress towards Output 3 is well underway with 3,067 seedlings accessioned at the end of Y1. DNA extraction and molecular analyses of these samples (as well as those harvested in Y2) will take place in Y2 and Y3, when seedlings from soil samples will be identified by comparison with the DNA sequence data (which will be generated from Output 1 in Y2).These data will be made available to the DPLUS196 project team, to provide insight into the likely emergent species from the soil seedbank following goat removal.

New staff members at NPTVI lack specialist experience, skills and knowledge in non-native plant species management and soil seedbank monitoring (baseline condition). Capacity in BVI has been built during the training visit of Terrestrial Warden Simeon Cabral from NPTVI in the first two weeks of October 2024 (Annex 20). The follow up needs training assessment (Annex 22) compared with the training needs assessment prior to Simeon's visit (Annex 21) shows that this training has increased Simeon's knowledge and skills and consequently his ability to effectively do his job, and to be able to train others in specific skills. This training has complimented training also received from Indigena (DPLUS196) in invasive plant control in the field, with benefits not just in soil seedbank monitoring to enable effective non-native plant management, but in wider NPTVI activities that contribute towards the conservation of native habitats and plant species diversity and therefore the Impact of the project overall.

3.3 Progress towards the project Outcome

The native and non-native plant species with a soil seedbank are currently unknown for the Tobago Islands in BVI (baseline condition for both Indicators 0.1 and 0.2). Over 3,000 seedlings have been photographed and harvested for DNA analysis (see Annexes 23-24 for evidence of these activities). Once identified, the number of native and non-native plant species emerging from the soil seedbank from the Tobago islands in BVI will be known. These data will inform the project team of those non-native species that are likely to persist and require further control, as well as those native plant species that are likely to naturally recover following non-native species control. This information will be crucial to enable project teams (DPLUS196 and DPLUS215) to work together to develop an invasive plant seedbank control strategy and a non-native plant biosecurity plan to protect native vegetation and support its recovery on these islands.

The project Outcome remains relevant, and the indicators remain suitable for measuring the intended Outcome. We will continue to monitor the project indicators to ensure that the project remains on target. We feel that no interventions are needed at this stage. The project remains on track to be able to achieve this desired Outcome by March 2027.

3.4 Monitoring of assumptions

Outcome and Output level assumptions still hold true. An additional risk (discussed in Section 9) was added to the Risk Register. Other than this, there have been no changes in risks or assumptions during the first year of the project that have been of concern. Those assumptions that have held true during this reporting period are discussed below.

Weather conditions did not significantly hamper project activities in the first field season. Soil samples were collected during three separate day trips to Great Tobago. The soil samples were collected during a single day trip by helicopter to Little Tobago. The second field season soil collection is planned for similar times this year when weather conditions should be

favourable. However, as inclement weather remains a risk this will continue to be monitored. (Assumption 0.1, 2.1)

Seed germination from soil samples collected from both islands has exceeded expectations, with over 3,000 seedlings harvested in the first year, indicating that collection, drying and storage protocols did not affect viability of seeds in the soil. Soil handling conditions during the upcoming second field season will continue to be monitored to ensure assumptions hold true (Assumptions 0.2; 2.2)

Assumptions related to building the non-native plant species DNA library and molecular work to enable seedling identification (Assumptions 1.1 – 1.4; 3.2) remain unchanged, as this work only commences in Y2.

Most seedlings harvested from seedling trays from seeds germinated in soil samples have possessed several leaves and are therefore large enough to ensure there is sufficient material for excess tissue samples to be retained following DNA analysis (Assumption 3.1).

Simeon Cabral had a successful training visit to Kew in October 2024 (see Section 3.1; Output 4). Discussions have already commenced to plan the second NPTVI training visit in October 2025 (Assumption 4.1).

Assumptions related to Kew staff travelling to BVI for training and outreach activities (Assumptions 4.2, 4.3) remain unchanged, as this work is scheduled for Y3.

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

Invasive non-native plants negatively affect native biodiversity by outcompeting native species, altering habitats, and reducing ecosystem resilience. The UK's commitment to implement the Global Biodiversity Framework Targets (one of which is Target 6, to "reduce the introduction of invasive alien species by 50% and minimise their impact") and to work with international partners to achieve this objective, is clear in the recently published UK's National Biodiversity Strategy and Action Plan (2025). Knowledge of the native and non-native plant species within the soil seedbank will enable NPTVI to uphold Guiding Principle 7 of The British Virgin Islands Environment Charter, which commits "To safeguard and restore native species, habitats and landscape features, and control or eradicate invasive species".

The removal of invasive plant species within designated protected areas is a high priority for NPTVI as its mission is to protect native species and habitats. The ability to have funds to successfully access Little Tobago National Park by helicopter to collect soil samples and assess the existing vegetation was a critical baseline, as this park has only been visited once before in 2014.

Creating reference collections of invasive species in BVI is crucial for understanding and managing the local environment. These collections can be used for identification, research, and to inform future conservation efforts. This, coupled with the training received by NPTVI from both this project and DPLUS196, and the associated capacity building and knowledge transfer, is helping to protect the native biodiversity of BVI.

5. Gender Equality and Social Inclusion (GESI)

GESI Scale	Description	Put X where you think your project is on the scale
Not yet sensitive	The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach	
Sensitive	The GESI context has been considered and project activities take this into account in their design and implementation. The project addresses basic needs and vulnerabilities of women and marginalised groups and the project will not contribute to or create further inequalities.	X
Empowering	The project has all the characteristics of a 'sensitive' approach whilst also increasing equal access to assets, resources and capabilities for women and marginalised groups	
Transformative	The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	

The team is gender balanced, and responsibilities are shared among members of different gender. For example, the steering group consists of both a male and female co-chair. The Kew project leader and NPTVI lead are both females. The wider project team consists of 8 females (Cassander Titley O'Neal, Nancy Woodfield-Pascoe, Kyla Ryan and Creightanya Brewley from NPTVI and Rosemary Newton, Marcella Corcoran, Sara Barrios and Freya Cornwell-Davison from Kew), and 8 males (Stuart Cable, Tom Heller and Juan Viruel from Kew and Keith Grant, Jahkoy Gordon, Simeon Cabral, Dequand Leonard and Chane Smith from NPTVI).

Soil collection for seedbank studies was undertaken by 6 males (Tom Heller from Kew and Keith Grant, Jahkoy Gordon, Simeon Cabral, Chane Smith and Dequand Leonard from NPTVI) and 5 females (Sara Barrios and Eloise Budd from Kew and Nancy Woodfield-Pascoe, Kyla Ryan and Creightanya Brewley from NPTVI).

Regular monitoring of soil samples in the Quarantine House at Kew was undertaken by 3 females: project leader Rosemary Newton (Kew) with help from two volunteers (Carey Kelting and Maggie Gowan).

Training of Simeon Cabral during his visit to Wakehurst and Kew was delivered by 16 females and 9 males over the two-week period he was in the UK (Annex 26).

Kew was awarded the Bronze Level Athena Swan accreditation in 2022, in recognition of Kew's good practices towards the advancement of gender equality.

6. Monitoring and evaluation

A steering group involving all the partners was established at the start of the project to ensure that all members were involved in all planning, development and decision making. Regular email and online Teams conversations have maintained good communications between Kew and NPTVI, in addition to the two formal steering group meetings (Annexes 4-7) and two project meetings (Annexes 8-9) that were held at regular intervals throughout the first year of the project.

Weekly Kew UKOTs meetings which are attended by all Kew project staff ensure project Activities are regularly discussed to ensure effective monitoring of progress towards Outputs and Outcomes.

There have been no changes to the Monitoring and Evaluation plan over the reporting period. However, changes to the logframe, to ensure that the indicators are SMART (following helpful feedback from the reviewers, Section 8), has strengthened Monitoring and Evaluation.

Agendas and Minutes are produced and distributed by the project leader by email for checking and correction before the next meeting.

The Steering Group agreed that the Monitoring and Evaluation is appropriate and that the project is on course to meet its targets.

7. Lessons learnt

The three closely related Darwin Plus funded projects (DPLUS215, DPLUS196 and DPLUS183) have worked well together, maximising potential synergies, which resulted in considerable financial savings (as in-kind or matched funding; Table 2, Section 13) and avoided duplication of effort. For example, partnering on Little Tobago field work extended the opportunity for work to take place on two projects within a single day trip (Annex 16).

Planning extra contingency days ensured that all field work was able to be completed. This was especially important in June 2024, when an unexpected tropical storm with heavy rain resulted in two planned day trips to Great Tobago to be cancelled. However, the contingency days ensured that three trips to Great Tobago were still possible and all planned soil samples were collected.

Prioritising certain activities, such as soil collection, at the beginning of field trips was essential, as this allowed damp soil to be properly dried before triple-bagging for transport to the Quarantine House at Kew in the UK (Output 2, Section 3.1).

The importance of regular monitoring of the soil and environmental conditions in the Quarantine House ensured a rapid response to potentially serious issues. These issues were able to be quickly remediated, highlighting the necessity of having effective monitoring systems in place.

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

We thank the reviewers for their thoughtful feedback (received in the letter informing us that the project was approved for funding) which has assisted us in strengthening the project. The reviewers indicated that the logframe could be SMARTer and that the means of verification 0.3 was an indicator and that other means of verification could be shortened as they read as activities. They also suggested that we consider how the skills learned at Kew could be cascaded when the two BVI staff return home after their training visits.

We have updated the logframe to incorporate this feedback (Annex 27), corrections of which have been tracked (Annex 28) to enable changes to be easily viewed. If these changes are considered acceptable, this updated logframe can replace the original logframe (Annex 2).

9. Risk Management

A new risk was added to the risk register in 2024: Seedling loss following germination and prior to harvesting for DNA (Risk 7) (Annex 29). This risk was identified when problems with maintaining high temperatures and humidities representative of the BVI climate within the Quarantine House Bay being used for the DPLUS215 project arose in September 2024 and when fungus gnats affected seedling health early in 2025.

No significant adaptations to the project design were required because of the identification of this additional risk. The project leader discussed the issue of maintaining required temperatures in the Quarantine House with Kew management. A temporary measure of bringing in oil-filled portable radiators was actioned until Kew Estates was able to attend to the problem. Seed tray lids were sourced to increase the humidity within seed trays; these proved effective and have been continued to be used to raise the humidity above the soil surface to protect emergent young seedlings from dehydration.

During the period in which temperatures were cooler (c. 14-20°C) than temperatures typical of BVI (c. 25-28°C), neither seedlings nor seed germination were negatively impacted by this change. Many species' seeds germinate over a relatively wide range of temperatures, and this was confirmed by continued observation of seedling emergence during this period of cooler temperatures. Seedlings appeared less heat-stressed and marginally healthier in these cooler temperatures; consequently, we are now considering a wider temperature range within Bay 8 in the Quarantine House acceptable. Temperature and humidity are logged in Bay 8 (Annex 30) and these readings are checked regularly to ensure they remain at acceptable levels for seed germination and seedling health.

Late December 2024 a couple of small flies were noted in Bay 8. These were reported to Kew's Plant Health Officer, David Hicks, and the Head of Plant Health and Quarantine at Kew, Joanna Bates. The flies had increased in number over the December holiday period and in January yellow sticky traps were placed in each tray to control the numbers. The flies were identified as fungus gnat flies, which are not a notifiable species. Although the fly numbers reduced somewhat because of the sticky traps, some young seedlings appeared unhealthy, and on removal for DNA harvesting were found to have poor root formation.

Fungal gnat larvae are known to affect the roots of young seedlings, and so *Steinernema*, a nematode to control fungal gnat larvae, was purchased, and three treatments of watering these into the soil in February and March reduced the fly population to virtually zero, and newly emerging seedlings appeared healthy. Sowing of the remaining Replicates 3 – 5 of Little Tobago soil was delayed until the *Steinernema* was first administered to ensure that seedlings from newly sown soil would not be affected. The number of seedlings that were affected by the fungal gnats were relatively few compared with the total number of seedlings harvested. Furthermore, tissue material from these affected seedlings was still able to be harvested and is likely to be enough to obtain sufficient DNA to enable identification.

The severity of the issues experienced under Risk 7 was significantly reduced by the quick action of the project leader of reporting these to relevant Kew staff who were able to assist with rapid response measures, thereby protecting the project Outputs and Outcome.

10. Scalability and durability

The methodologies and learnings from this project could be extended to other National Parks in BVI, such as Prickly Pear National Park, where invasive feral animals and plants need to be removed to enable native biodiversity recovery.

The native (DPLUS183) and non-native (this project) plant species' lists produced, and the associated genomic libraries, will be an invaluable reference resource for the archipelago, enabling rapid identification of species where this is not easily possible using morphological means.

The restoration of the Tobagos Islands, as a direct result of the actions of and synergies between DPLUS215, DPLUS196 and DPLUS183, will be able to be duplicated in other Caribbean nations, which have similar problems with invasive species.

The use of DNA fingerprinting to identify species present in the soil seedbank are applicable more widely than the Caribbean and could be used in any natural habitat to assess the

expected emergent native and non-native plant species from the soil seedbank in support of biodiversity conservation and restoration.

The benefits of training in both skills and knowledge and embedding practices in the day-to-day activities of NPTVI staff is another way in which the project will endure.

This project and closely associated DPLUS183 and DPLUS196 can be considered an exemplar model of how projects employing novel approaches can synergise.

11. Darwin Plus identity

Darwin Plus has been identified as the funder of the DPLUS215 project in all communications, including presentations within Kew, on the Kew website (https://www.kew.org/science/our-science/projects/assessing-bvi-habitat-recovery), and to external organisations. An example of the latter is the presentation given to the members of the BVI House in the UK on 3 July 2024 (Annex 31).

This funding has been recognised as a distinct project with a clear identity, but also with strong links to other Darwin Plus funded projects (DPLUS183, DPLUS196) which have also been acknowledged in all communications.

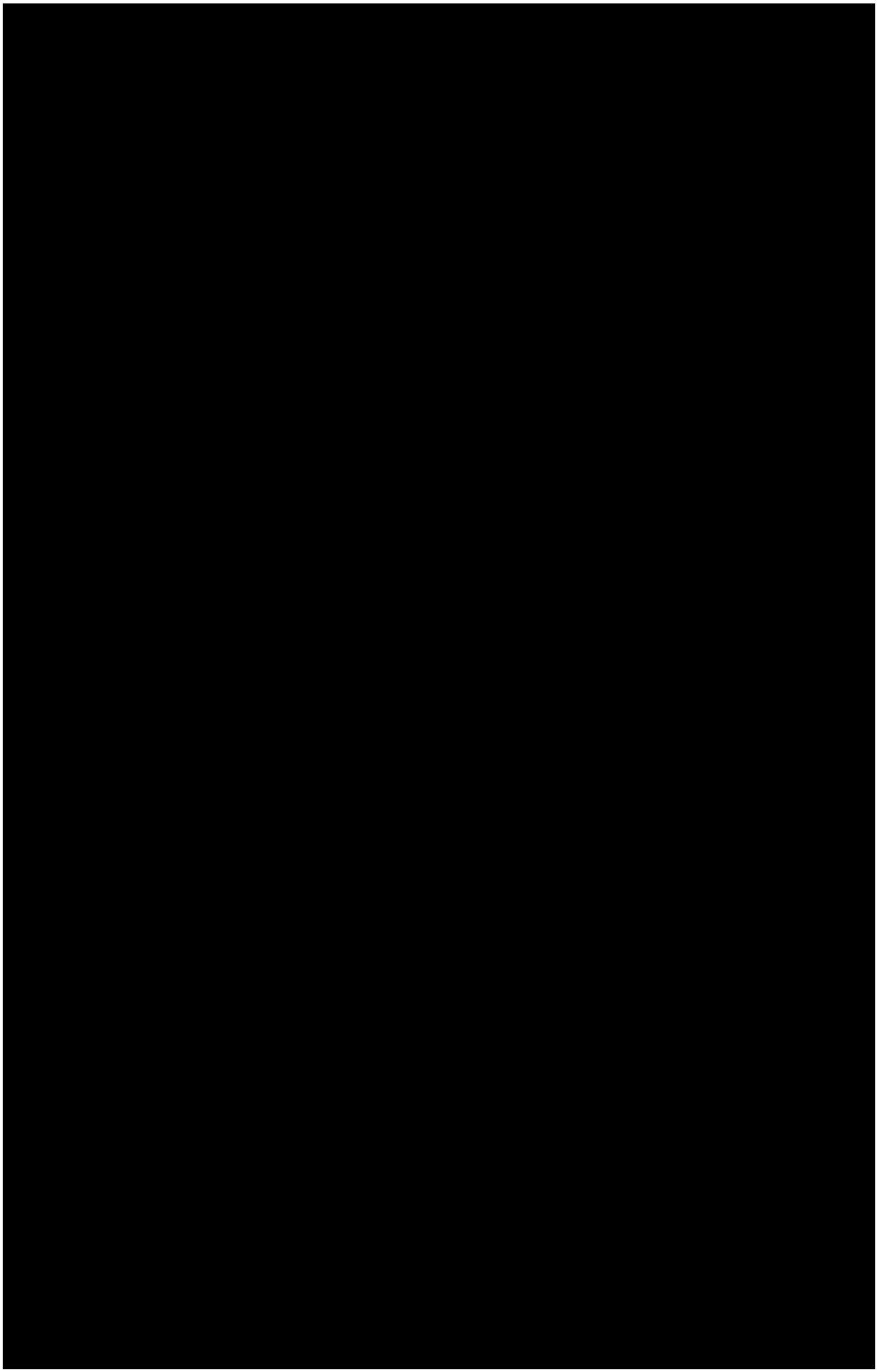
NPTVI promotes Darwin Plus projects and funding received in its public engagement programme to highlight the importance of this research and conservation in BVI (https://www.bvinpt.org/blog). NPTVI also engage with the local press to promote Darwin Initiative projects.

Updates on our project have been regularly uploaded to the NPTVI Facebook account (https://www.facebook.com/NPTVI; Annex 24) and to the project leader's X/Twitter feed ([redacted]. X/Twitter posts (#DPLUS215) have tagged @UKBCFs, as well as @KewScience, @KewUKOTs (both Kew X/Twitter accounts) and @BVIGovernment. The snapshots of these posts (Annex 23) don't indicate their full impact as they were often captured very soon after posting.

When Twitter changed to X, many individuals and organisations, including Kew, have favoured other social media accounts, which has reduced the impact of these posts. However, as Means of Verification 4.4 (for Output 4) specifically states that Twitter posts will be a measured metric, posting to this platform has continued. NIRAS were asked whether this metric could be adjusted without a change request from "Twitter" to "social media", so that an alternative platform to X with better exposure may be considered; they advised that the reviewer of this annual report would be able to comment on this request.

12. Safeguarding

[redacted]



13. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2024 – 31 March 2025)

Project spend (indicative) in this financial year	2024/25 D+ Grant (£)	202/25 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs	[redacted]			
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (Please specify)				
TOTAL	**£83,347**	**£75,842**		

We become aware of a mismatch between our DPLUS215 budget, logframe and workplan in June 2024, which occurred when we changed our plans of when training should take place during discussions with our NPTVI partners in BVI between Stage 1 and Stage 2 of the application. Financially we budgeted for BVI staff to visit in Y2 (1 person) and Y3 (1 person), while in the logframe and workplan we indicated that this would be done in Y1 (1 person) and Y2 (1 person). We submitted a change request to correct this mismatch between our budget and planned activities on 26 June 2024. We requested that the training budget for Y2 of £4,685

was moved forward to Y1 and the training budget for Y3 of £4,925 was brought forward to Y2 to match our described activities in the logframe and workplan.

This request was approved by Defra and confirmation of this was received from NIRAS on 3 July 2024. Table 1 above reports on the budget following the change request approval.

Table 2: Project mobilised or matched funding during the reporting period (1 April 2024 – 31 March 2025)

	Secured to date	Expected by end of project	Sources
Matched funding leveraged by the partners to deliver the project (£)	[redacted]		In-kind staff time ([redacted]) In-kind staff time ([redacted]) Organisation Overheads (Kew and NPTVI) DPLUS196 in-kind funding DPLUS183 in-kind funding
Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£)			

14. Other comments on progress not covered elsewhere

N/A

15. OPTIONAL: Outstanding achievements or progress of your project so far (300-400 words maximum). This section may be used for publicity purposes.

N/A

Annex 1: Report of progress and achievements against logframe for Financial Year 2024-2025

Project summary	Progress and Achievements April 2024 - March 2025	Actions required/planned for next period
Impact The native habitats and plant species diversity of the British Virgin Islands conserved through the eradication of non-native species and recovery of native species	Seedlings collected from the Tobagos soil seedbank during Y1 of the project is the first step in understanding which non-native plant species will likely require longer-term eradication strategies, and which native plant species will likely recover from the soil seedbank, following goat removal from these islands, which will help to conserve the native plant diversity of BVI.	[redacted]
Outcome The long-term non-native plant biosecurity strategy and native plant species recovery for Great Tobago and Little Tobago informed by science-based management from soil seedbank studies		
Outcome indicator 0.1 Number of non-native plant species persisting in the soil seedbank following invasives eradication for Great and Little Tobago determined by Q4, Y3 [DPLUS-B01]	From the first field season of soil samples, 3,067 seedlings photographed and harvested for DNA analysis so far (Annexes 23-24 document evidence of these activities). As it is not yet possible to identify which of these seedlings are native or non-native, progress towards this outcome inseparable from Outcome Indicator 0.2 (Section 3.3).	Harvest and photograph the remainder of seedlings from the first field season and seedlings to be obtained from soil samples collected in the second field season.
Outcome indicator 0.2 Number of native plant species present in the soil to aid native habitat recovery for Great and Little Tobago determined by Q4, Y3 [DPLUS-B01]	From the first field season of soil samples, 3,067 seedlings photographed and harvested for DNA analysis so far (Annexes 23-24 document evidence of these activities). As it is not yet possible to identify which of these seedlings are native or non-native, progress towards this outcome inseparable from Outcome Indicator 0.1 (Section 3.3).	Harvest and photograph the remainder of seedlings from the first field season and seedlings to be obtained from soil samples collected in the second field season.
Output 1 Non-native plant species DNA sequence data for BVI generated and accessioned in secure collections		
Output indicator 1.1 Updated list of all non-native plant species occurring in BVI (estimated at 263 species in "Retaining Nature's Little Secrets: A Guide to the Important Plants and Tropical Important Plant Areas	A working list of non-native plant species has been produced from several different pertinent data sources (Sections 3.1 & 3.2, Annex 10).	Working list to be finalised and plant material sourced for these species to obtain DNA

of the British Virgin Islands" by Kew in 2019) produced from Kew and NPTVI data and published literature by Q3, Y1 [DPLUS-B01]		sequences for the BVI non-native plant species Tree of Life.
Output indicator 1.2 Tissue samples for all non-native plant species in BVI (from 1.1) sourced from DNA and Tissue Bank, Herbarium, MSB and the field by Q2, Y2	Suitable sources (Kew Herbarium, Kew Tissue Bank, Kew Living Collections) are being checked for availability for DNA sampling.	DNA sampling from suitable sources, gaps identified, with action plans for filling these; DNA sequence data for Non-Native BVI Plant Species generated.
Output indicator 1.3 DNA and tissue collections for all non-native plant species in BVI (from 1.1) completed with DNA material available for sequencing by Q2, Y3	N/A for this reporting year.	N/A for next reporting year.
Output indicator 1.4 Sequence data generated, a DNA library produced, and the Tree of Life completed for all native and non-native plant species in BVI (from 1.1) by Q4, Y3 [DPLUS-C16]	N/A for this reporting year.	N/A for next reporting year.
Output 2 Database and reference document for all emergent native and non-native plant seedlings created to enable seedling identification		
Output indicator 2.1 Minimum of 200 soil samples collected over two field seasons (70 from Great Tobago and 30 from Little Tobago per field season) and sent to Kew for processing by Q4, Y1 and Q4, Y2, respectively	One hundred soil samples (70 from Great Tobago in June and 30 from Little Tobago in November) were collected and couriered to Kew (Sections 3.1 & 3.2, Annexes 11-18).	Next one hundred soil samples (70 from Great Tobago and 30 from Little Tobago in the second field season) to be collected and couriered to Kew.
Output indicator 2.2 All soil samples (from 2.1) processed and all emergent native and non-native seedlings photographed for soil seedbank seedling identification guide by Q2, Y3 [DPLUS-C01]	All one hundred soil samples were spread onto autoclaved compost in seedling trays and all emergent seedlings photographed (Sections 3.1 & 3.2, evidence of activities in Annexes 23-24).	Next one hundred soil samples to be spread onto autoclaved compost in seedling trays and all emergent seedlings photographed.
Output indicator 2.3		

All emergent native and non-native seedlings collected for DNA analysis by Q1, Y3	From the first field season of soil samples, 3,067 seedlings have been harvested for DNA analysis. (Sections 3.1 & 3.2; Annexes 23-24 document evidence of these activities).	Harvest the remainder of seedlings from the first field season, and seedlings from the second field season for DNA analysis.
Output indicator 2.4 Seedling images (from 2.2) compiled into a reference document for partner use in seedling identification by Q3, Y3	N/A for this reporting year.	N/A for next reporting year.
Output 3 The risk of non-native plant species persisting and the potential for native plant species recovering from the soil seedbank quantified		
Output indicator 3.1 All seedling DNA analysed, and species identified, by Q3, Y3	N/A for this reporting year.	N/A for next reporting year.
Output indicator 3.2 Lists of native and non-native plant species likely to persist in the soil seedbank on both Great and Little Tobago National Parks produced by Q3, Y3	N/A for this reporting year.	N/A for next reporting year.
Output indicator 3.3 Comparison of native and non-native plant species lists to estimate vegetative recovery on both islands completed by Q4, Y3	N/A for this reporting year.	N/A for next reporting year.
Output indicator 3.4 Draft manuscript submitted for publication by Q4, Y3 [DPLUS-B02, DPLUS-C17]	N/A for this reporting year.	N/A for next reporting year.
Output 4 Capacity built for soil seedbank monitoring to enable effective non-native plant species management; outreach activities undertaken to raise the awareness of invasive plant species		
Output indicator 4.1 Two NPTVI staff (with at least one female) trained at Kew in soil seedbank germination, seedling morphology and interpretation of molecular results by Q1, Y2 and Q1, Y3, respectively [DPLUS-A02, DPLUS-A04]	Terrestrial Warden Simeon Cabral received two weeks of training on seed collecting, storage and germination, nursery techniques (at Wakehurst), and herbarium curation, soil seed germination, DNA extraction and basic arboriculture	The next NPTVI staff member to travel to Kew to receive two weeks of training.

	techniques (at Kew) during October 2024 (Sections 3.1 & 3.2, Annexes 20-24,26).	
Output indicator 4.2 At least 50%(?) of NPTVI staff attending the final DPLUS215 workshop and training to ensure successful implementation of their non-native plant species management plan and continued monitoring by Q4, Y3 [DPLUS-A03, DPLUS-A07]	N/A for this reporting year.	N/A for next reporting year.
Output indicator 4.3 4.3 Outreach activities with at least 5 landowners and nurseries on non-native and invasive plant species undertaken by 2 Kew staff (with at least one female) and NPTVI staff in BVI by Q4, Y3 [DPLUS-A01]	N/A for this reporting year.	N/A for next reporting year.
Output indicator 4.4 The profile of Darwin Plus and the project raised throughout the life of the project using social media and blogs [DPLUS-C12]	The profile of Darwin Plus has been raised through project promotion on X/Twitter (Annex 23), Facebook (Annex 24), the Kew website ((https://www.kew.org/science/our-science/projects/assessing-bvi-habitat-recovery), a blog (Annex 25) and presentations (e.g. Annex 31).	The profile of Darwin Plus will continue to be promoted throughout the project by means of social media and blogs.

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

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
Impact: (Max 30 words) The native habitats and plant species diversity of the British Virgin Islands conserved through the eradication of non-native species and recovery of native species			
Outcome: (Max 30 words) The long-term non-native plant biosecurity strategy and native plant species recovery for Great Tobago and Little Tobago informed by science-based management from soil seedbank studies	0.1 Number of non-native plant species persisting in the soil seedbank following invasives eradication for Great and Little Tobago determined by Q4, Y3 **[DPLUS-B01]** 0.2 Number of native plant species present in the soil to aid native habitat recovery for Great and Little Tobago determined by Q4, Y3 **[DPLUS-B01]**	0.1 List of the non-native plant species identified from soil seedbank studies published in the final Darwin report 0.2 List of the native plant species identified from soil seedbank studies published in the final Darwin report 0.3 Updated management plan for Great and Little Tobago developed by NPTVI following incorporation of relevant soil seedbank study results	0.1 Weather conditions allow boat access to Great Tobago and helicopter access to Little Tobago as planned to allow soil sample collection (external factor) 0.2 Soil samples contain sufficient viable seeds to accurately assess the soil seedbank for both islands
Outputs: **1**. Non-native plant species DNA sequence data for BVI generated and accessioned in secure collections	1.1 Updated list of all non-native plant species occurring in BVI (estimated at 263 species in "Retaining Nature's Little Secrets: A Guide to the Important Plants and Tropical Important Plant Areas of the British Virgin Islands" by Kew in 2019) produced from Kew and NPTVI data and published literature by Q3, Y1 **[DPLUS-B01]**	1.1 Updated non-native plant species list for BVI produced from literature survey shared with partners and included as an annex to the first Darwin annual report 1.2 List of tissue samples for all the non-native plant species in BVI produced and these data made available to partners and included	1.1 Vegetative material is available for all non-native BVI species in the updated list under indicator 1.1 (external factor) 1.2 DNA is successfully extracted from any problematic species (e.g., species containing polysaccharides, secondary metabolites, etc.) (external factor)

	1.2 Tissue samples for all non-native plant species in BVI (from 1.1) sourced from DNA and Tissue Bank, Herbarium, MSB and the field by Q2, Y2 1.3 DNA and tissue collections for all non-native plant species in BVI (from 1.1) completed with DNA material available for sequencing by Q2, Y3 1.4 Sequence data generated, a DNA library produced, and the Tree of Life completed for all native and non-native plant species in BVI (from 1.1) by Q4, Y3 **[DPLUS-C16]**	as an annex to the second annual Darwin report 1.3 Accession numbers for all non-native plant species in BVI created in the DNA and Tissue Bank at Kew and the results of DNA extractions made available to partners and included as an annex to the final Darwin report 1.4 DNA sequence data publicly available in the Sequence Read Archive (SRA: https://www.ncbi.nlm.nih.gov/sra) and data shared with Kew's Tree of Life Explorer for incorporation into their database (https://treeoflife.kew.org/)	1.3 Molecular techniques can adequately authenticate all non-native plant species 1.4 The incorporation of new data and maintenance of the Kew Tree of Life Explorer continues at current levels of core support (external factor)
2. Database and reference document for all emergent native and non-native plant seedlings created to enable seedling identification	2.1 Minimum of 200 soil samples collected over two field seasons (70 from Great Tobago and 30 from Little Tobago per field season) and sent to Kew for processing by Q4, Y1 and Q4, Y2, respectively 2.2 All soil samples (from 2.1) processed and all emergent native and non-native seedlings photographed for soil seedbank seedling identification guide by Q2, Y3 **[DPLUS-C01]** 2.3 All emergent native and non-native seedlings collected for DNA analysis by Q1, Y3	2.1 Customs clearance and Air Waybill paperwork for soil samples completed 2.2 Database detailing soil samples processed and photographs saved in project directory and attached as annex to Steering Group meeting minutes and final Darwin report 2.3 Database of native and non-native seedling accession numbers saved in project directory and attached as annex to Steering Group meeting minutes and final Darwin report	2.1 DPLUS196 field trips proceed as planned and soil can be collected during these trips unhampered by inclement weather and sea conditions (external factors) 2.2 Soil samples stored in suitable conditions (dry and cool) during storage and transport, so that seeds remain viable (partly external factors) 2.3 Soil samples contain sufficient seeds and seeds germinate under Quarantine House growth conditions (external factors)

	2.4 Seedling images (from 2.2) compiled into a reference document for partner use in seedling identification by Q3, Y3	2.4 Reference document for use in seedling identification shared with partners and attached as an annex to the final Darwin report	
3. The risk of non-native plant species persisting and the potential for native plant species recovering from the soil seedbank quantified	3.1 All seedling DNA analysed, and species identified, by Q3, Y3 3.2 Lists of native and non-native plant species likely to persist in the soil seedbank on both Great and Little Tobago National Parks produced by Q3, Y3 3.3 Comparison of native and non-native plant species lists to estimate vegetative recovery on both islands completed by Q4, Y3 3.4 Draft manuscript submitted for publication by Q4, Y3 **[DPLUS-B02, DPLUS-C17]**	3.1 List of species identified on each island attached as an annex to the final Darwin report 3.2 Database of native and non-native seeds found in soil seedbank produced for Great and Little Tobago National Parks and a summary of the findings published in final Darwin report 3.3 A comparison of the native and non-native plant species in the soil seedbank on Great and Little Tobago shared with partners and published in the final Darwin report 3.4 Draft manuscript quantifying the risk of non-native plant species persisting in the soil seedbank and estimating the recovery of native plant species from the soil seedbank	3.1 Sufficient seedling material can be collected from germinated seeds to enable DNA analysis 3.2 DNA sequences for all native plant species are obtained in DPLUS183 and for all non-native plant species in Output 1 to enable successful seedling identification (external factor)
4. Capacity built for soil seedbank monitoring to enable effective non-native plant species management; outreach activities undertaken to raise the awareness of invasive plant species	4.1 Two NPTVI staff (with at least one female) trained at Kew in soil seedbank, seedling morphology and interpretation of molecular results by Q1, Y2 and Q1, Y3, respectively **[DPLUS-A02, DPLUS-A04]**	4.1 Report on each training visit to Kew produced, shared with partners and included as an annex to the Steering Group minutes and annual Darwin reports	4.1 Selected NPTVI staff can travel to Kew for training 4.2 Selected Kew staff can travel to the BVI for training and outreach activities

	4.2 Two Kew staff to run a Soil Seedbank Management Workshop in BVI to enable NPTVI staff to refine their non-native plant species management plan by Q4, Y3 **[DPLUS-A03, DPLUS-A07]** 4.3 Outreach activities with landowners and nurseries on non-native and invasive plant species by Kew and NPTVI staff in BVI by Q4, Y3 **[DPLUS-A01]** 4.4 The profile of Darwin Plus and the project raised throughout the life of the project using social media and blogs **[DPLUS-C12]**	4.2 Report detailing the Soil Seedbank Management Workshop delivery to NPTVI staff included as an annex to the final Darwin report 4.3 Report of outreach activities in BVI by two Kew staff (with at least one female) and NPTVI staff delivered to at least five landowners and nurseries included as an annex to the final Darwin report 4.4. At least one blog and twenty Twitter posts per year promoting project activities, included as an annex to the annual and final Darwin reports	4.3 Suitable venues can be found to host the training activities and workshop and people are able and willing to attend

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1. Each activity should start on a new line and be no more than approximately 25 words.)

1.1 Produce non-native species list and agree sampling methods and protocols
1.2 Source vegetative samples of all known non-native plant species in BVI
1.3 Generate DNA sequence data and complete the Tree of Life for all non-native BVI plant species
1.4 Produce non-native plant species library for use in Output 2 and 3

2.1 Produce and agree sampling methods and protocols, arrange permits
2.2 Collect soil samples from Great Tobago and Little Tobago National Parks
2.3 Transport soil samples to Quarantine House at Kew
2.4 Water soil and photograph emergent seedlings to capture morphological characteristics
2.5 Collect and dry emergent seedlings for DNA analysis
2.6 Produce a seedling guide for emergent native and non-native plant seedlings from the Tobagos soil seedbank

3.1 Accession and process seedlings for DNA extraction
3.2 Molecular analysis of seedlings from soil samples
3.3 Produce a list of the native and non-native plant species present in the Tobagos soil seedbank
3.4 Compare native and non-native plant species on both islands to estimate vegetation recovery on the Tobagos

3.5 Manuscript drafted and submitted for publication

4.1 First BVI colleague to Kew for soil seedbank, seedling morphology & molecular analyses training
4.2 Second BVI colleague to Kew for soil seedbank, seedling morphology & molecular analyses training
4.3 Two Kew colleagues visit BVI for outreach activities (landowners/plant nurseries)
4.4 Two Kew colleagues visit BVI for Soil Seedbank Management Workshop
4.5 Dissemination of project activities and progress via blogs and social media

Table 1 Project Standard Indicators

Please see the Standard Indicator guidance for more information on how to report in this section, including appropriate disaggregation.

DPLUS Indicator number	Name of indicator	If this links directly to a project indicator(s), please note the indicator number here	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DPLUS-A01	Number of people in eligible countries who have completed structured and relevant training	4.1	Number of People	British Virgin Islands, Male	1			1	2
DPLUS-A03	Number of local or national organisations with enhanced capability and capacity	4.1	Number of Organisations	British Virgin Islands, Male	1			1	1
DPLUS-A04	Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training	4.1	Number of People	British Virgin Islands, Male	1			1	2
DPLUS-B01	Number of new/improved habitat management plans available and endorsed	0.3, 3.4	Number of Plans	British Virgin Islands, New/Improved	0			0	1
DPLUS-C12 (WAS C06)	Analytics for funded project-specific social media posts	4.4	Number of Posts	British Virgin Islands, Twitter/X British Virgin Islands, Facebook	30 7			30 7	60 0
DPLUS-C09 (WAS C16)	Number of records added to accessible databases	1.3, 2.3, 3.2	Number of Records	British Virgin Islands	0			0	Three databases with unknown number of records

Table 2 Publications

Title	Type (e.g. journals, best practice manual, blog post, online videos, podcasts, 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)
DPLUS 215 Project page Assessing British Virgin Islands habitat recovery using soil seedbanks	Online	Newton, Rosemary 2024	Female	British	Royal Botanic Gardens, Kew	https://www.kew.org/science/our-science/projects/assessing-bvi-habitat-recovery
DPLUS 215 Year 1 Blog post Guardians of the Soil: Racing to Protect the BVI's Fragile Ecosystems	Online	Newton, Rosemary 2025	Female	British	Royal Botanic Gardens, Kew	https://www.kew.org/read-and-watch/guardians-of-the-soil-bvi

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the **correct template** (checking fund, scheme, type of report (i.e. Annual or Final), and year) and **deleted the blue guidance text** before submission?	Y
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	Y
Is your report more than 10MB? If so, please consider the best way to submit. One zipped file, or a download option, is recommended. We can work with most online options and will be in touch if we have a problem accessing material. If unsure, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	N
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Y
Have you provided an updated risk register? If you have an existing risk register you should provide an updated version alongside your report. If your project was funded prior to this being a requirement, you are encourage to develop a risk register.	Y
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 15)?	N/A
Have you involved your partners in preparation of the report and named the main contributors	Y
Have you completed the Project Expenditure table fully?	Y
Do not include claim forms or other communications with this report.	