Darwin Plus Main & Strategic: Final 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: no later than 3 months after agreed end date.

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	DPLUS175
Project title	Enhancing monitoring and prevention of invasive non-native species across UKOTs
Territory(ies)	Anguilla, Bermuda, British Antarctic Territory, British Indian Ocean Territory, British Virgin Islands, Cayman Islands, Falkland Islands, Gibraltar, Montserrat, Pitcairn, South Georgia and South Sandwich Islands, Sovereign Base Areas of Akrotiri and Dhekelia (on Cyprus), St Helena, Ascension and Tristan da Cunha, Turks and Caicos Islands
Lead Organisation	UK Centre for Ecology & Hydrology
Project partner(s)	Joint Services Health Unit, Cyprus
Darwin Plus Grant value	£299,249.00
Start/end date of project	1 July 2022 – 31 March 2025
Project Leader name	Helen Roy
Project website/Twitter/blog etc.	https://darwinplus.org.uk/project/DPLUS175/ https://www.ceh.ac.uk/our-science/projects/enhancing-monitoring-and-prevention-invasive-non-native-species-across-ukots
Report author(s) and date	Helen Roy, Diana Bowler, Jakovos Demetriou, Megan Williams, Emily Williams, Michael Pocock, Steph Rorke, David Roy and Kelly Martinou, July 2025

1 Project Summary

There are major gaps in baseline knowledge on Invasive Non-Native Species (INNS) globally. INNS inventories will be derived for each participating UKOT through collation of information from existing sources alongside on-line recording. The information compiled will underpin conceptual modelling frameworks, incorporating climate extremes, to predict arrival and spread of INNS and ultimately supporting improved biodiversity indicators and action. The inventories, consolidated through the Non-Native Species Secretariat, will inform conservation, education, research, and disaster recovery plans in response to climate change. We are reaching out to partners across all UKOTs (the 14 territories are: Anguilla; Bermuda; British Antarctic Territory (BAT); British Indian Ocean Territory (BIOT); British Virgin Islands; Cayman Islands; Falkland Islands; Gibraltar; Montserrat; Pitcairn, Henderson, Ducie and Oeno Islands; Saint Helena, Ascension and Tristan da Cunha; South Georgia and the South Sandwich Islands; Turks and

Caicos Islands; UK Sovereign Base Areas – Cyprus). Throughout the project we have worked collaboratively with all the 14 UKOTs but with some understandably having more capacity to engage than others and so the range and number of outputs varies for each UKOT.

2 Project Partnerships

The overarching aim of the project is to collate and information on invasive non-native species through an on-line database for all UKOTs. The outstanding support and engagement of partners and stakeholders in achieving this aim has been demonstrated through attendance at on-line meetings and in person workshops (workshop reports attached as separate files). Furthermore, the iterative process of co-developing the workshop agendas as well as the project outputs with project partners and stakeholders has led to the production of resources which are now available on-line including identification guides, including most recently a guide for South Georgia and the South Sandwich Islands produced in collaboration with DPLUS099.

As outlined in the Annual Report (2022-2023), the first stage of implementing the project involved meeting with partners on each of the UKOTs to discuss details of the work plan and to ensure that the specific activities could be as relevant as possible to each UKOT within the overarching scope of the project. The partners have played critical roles in delivery of the work plan including co-developing the programmes for the workshops, inviting key stakeholders an identifying and ranking the priority outputs during the workshops. This ensures that we had flexibility in the project so that the agenda and outputs were tailored to the specific needs of each UKOT. Workshops through 2022-2023 were undertaken for Cyprus, Gibraltar, British Antarctic Territory, St Helena, Anguilla, British Indian Ocean Territory and Montserrat. In the final year two further workshops were convened: 1. cross-Caribbean workshop was held in Anguilla which provided an opportunity for six UKOTs to come together and discuss information and data needs; 2. Falkland Islands. Programmes are available on the project website and participant lists provided as a separate file.

Dr Angeliki (Kelly) Martinou (JSHU, Cyprus SBA) is part of the project team and has been instrumental in the planning and delivery of the work undertaken so far including knowledge exchange through the workshops. Jakovos Demetriou (current Darwin Fellow, Cyprus SBA) has also contributed through presentation of the outputs of CyDAS, an online database of non-native species (developed through previous Darwin Plus projects specifically DPLUS56 and DPLUS88). A major output from this collaboration has been a manuscript documenting the CyDAS database which is under review with Scientific Data.

Stakeholders, from government departments, customs and border control, farming communities, NGOs, universities and research centres, were identified by our partners on the UKOTs. Their engagement has mainly been through completion of a pre-workshop **questionnaire** (see Annual Report 2022-2023), attendance at **workshops** with some participating in on-line meetings and providing **feedback on resources** developed as outputs from the workshop (for example identification guides). A summary of the responses to the pre-workshop questionnaire is being prepared for publication and the draft has been submitted with this final report.

Over the last year we have produced three newsletters to circulate to all partners and stakeholders across all UKOTs with updates on the project and requests for information on non-native species to include with the on-line database. Following on from the success of the four blogs posted in previously following the workshops, we have posted a further two blogs. These have been reviewed by partners on the relevant UKOTs. The blogs provide a convenient and accessible way to summarise the workshops and report on the outcomes. These resources are available on the project website. As a final communication for the project, an e-mail has been circulated that provides an update on progress and includes a link to a recorded presentation with an invitation to send any questions and comments about the project to the team.

The engagement from partners and stakeholders has continued to be outstanding and the evaluation, provided through feedback questionnaires, has been extremely encouraging (scanned feedback forms sent separately). Involvement of diverse stakeholders has provided unique opportunities to co-develop and pilot approaches to assess the impact of invasive non-

native species and consider interactions with climate change. A blog summarising this activity has been published on the project website.

Ongoing co-development of the work plan has been a priority and particularly in relation to additional or amended functions of the on-line data system and production of resources and outputs. As an example, the partners and stakeholders recognised the need to include local common names within the on-line system. In response to the needs of each UKOT, we have included workshop sessions on St Helena, Montserrat and Anguilla to review the species lists and a session on species information sharing, especially for the customs officers, on Anguilla. Additionally, we have been considering approaches to capture spatial information particularly for UKOTs that comprise multiple islands. The partners also requested to include invasive non-native species from the horizon scanning lists within the on-line system and this has been completed. The datasets for each UKOT have been circulated to all relevant stakeholders who were invited to provide feedback on omissions or errors. Again, the engagement of people on the UKOTs has been very much appreciated.

In previous years we had on-line meetings with many of the UKOTs and minutes are provided as a separate file. In the final year most of our correspondence was by e-mail with the invitation to meet if needed. This recognised the large task of compiling information from the sources provided and the practicalities of exchanging files in this way. Stakeholders on Ascension Island and South Georgia and the South Sandwich Islands noted that they did not capacity to work within the project because of competing priorities and available resources. However, in the last 6 months, stakeholders on Ascension expressed interest in meeting for a workshop and although we have not had time to arrange this within the project, we will provide an opportunity to meet if needed following the recorded presentation. We have developed checklists and on-line information for all 14 UKOTs.

The main strength of the project comes from the co-development of the workplan, achieved through on-line and in person meetings, with partners and stakeholders across the UKOTs. The contributions of the partners and stakeholders have continued to be inspiring, insightful and informative. Working together it has been possible to achieve even more than was envisioned for the project particularly in relation to the co-development of methods for assessing impact. The feedback from the UK Overseas Territories has been encouraging and constructive throughout the project.

3 Project Achievements

3.1 Outputs

Output 1. On-line open Non-Native Species (NNS) databases developed for all UKOTs with CyDAS as a prototype system

1.1 Baseline information available openly for at least 100 NNS for each UKOT (collated by Y3Q2)

Collation of information has been one of the major tasks through the final year and the following information has been collated for each UKOT (Table 1).

Table 1. Number of non-native species included within the on-line data system for each UKOT and number of resources which have not yet been compiled due to time constraints (Access date: 16 July 2025). Numbers in brackets in the column Number of non-native species are INNS that are not yet present in the UKOT but were on the horizon scanning list

UKOT	Number of non-native species	Number of resources including non-native species with additional information for compilation
Anguilla	478	
Ascension Island	502	2
Bermuda	2387 (1)	1

British Antarctic Territory	Information being compiled by BAS	23
British Indian Ocean Territory	603 (39)	25
British Virgin Islands	79 (1)	2
Cayman Islands	129 (177)	1
Falkland Islands	364 (19)	4
Gibraltar	234 (14)	
Monserrat	595 (5)	3
Pitcairn	210	
South Georgia and the South Sandwich Islands	132	6
St Helena	1901	2
Tristan da Cuhna	250	
Turks and Caicos	67 (10)	6

Data can be accessed on the website: Home | UK Overseas Territories database of Alien Species (https://ukotas.info/)
Over the last year many non-native species have been added to the online data system (Table 1) and the associated fields (Global Biodiversity Information Facility Taxon Key (~98%), Catalogue of Life ID (~90%), Scientific name (100%), authorship (~98%), Common name (~66%), Establishment status (~34%), Establishment status detail (~37%), First record (~42%), First record (range end date) (~1%), Habitat (26%), Impacts (~12%), Impact detail (13%), Pathway (1%), Pathway detail (7%), Other notes (~35%), Territories (100%), References (99%), Kingdom (~98%), Phylum (~98%), Order (~98%), Family (~98%)) have been updated for some of the species depending on availability of information.

1.2 Collaborative development of an approach to derive a relevant biodiversity indicator for INNS on each UKOT underpinned by key metrics for evaluating biosecurity efficiency (developed by Y3Q3)

The development of indicators has been discussed at all the workshops (Cyprus, Gibraltar, British Antarctic Territory, St Helena, Anguilla, British Indian Ocean Territory, Montserrat, cross-Caribbean (noting BVI were unable to attend) and the Falkland Islands). Presentations are available on the project website. In all cases, other outputs have been prioritised including species identification guides/factsheets. However, simple summaries from the information within the on-line data system will be displayed for each UKOT including number of non-native species within different taxonomic groups. During the workshops we have been discussing who will take the lead on maintaining the data system after the project ends. For Cyprus, we have co-developed a R Markdown script to process their local INNS database and produce a set of standard summary statistics, including assessment of change over time, or change in number of species in different habitats, which can be repeated as the new species are added to the database. This work has been reported through the manuscript submitted to Scientific Data (included as an attachment to this final report) and will be of relevance to all the UKOTs. We plan to submit a data paper that summarises all the information collated across the UKOTs. Additionally, we have been pleased to collaborate with Shyama Pagad in developing non-native species lists for the Global Register of Invasive and Introduced Species e.g. St Helena.

1.3 Documented approaches to quantifying impacts, including on natural capital and ecosystem services outlined within a guidance document with implementation for the priority INNS identified by the UKOTs (developed by Y3Q1)

Approaches and guidance for assessing impacts have been included within the workshops (Cyprus, Gibraltar, British Antarctic Territory, St Helena, Anguilla, British Indian Ocean Territory, Montserrat, cross-Caribbean (noting BVI were unable to attend) and the Falkland Islands). Presentations are available on the project website. Furthermore, interactive sessions

on St Helena, Anguilla, Montserrat and through the cross-Caribbean workshop have allowed the testing of approaches using the IUCN Environmental Impact Classification for Alien Taxa. Links to relevant resources have been added to the project website. A summary of the co-development of the approach has also been included as a blog on the project website. Further work is required to assess all the non-native species within the lists for each UKOT and assign a category of impact that disentangles environmental, social and economic impacts. This is beyond the scope of this project but will be explored for collaborative future funding applications.

1.4 One workshop with each of the UKOTs, including in some cases clusters of UKOTs, to consider options for updating and maintaining the NNS database (collaborative organisation, scheduling and delivery by Y3Q1)

Workshops have been held with Cyprus, Gibraltar, British Antarctic Territory, St Helena, Anguilla, British Indian Ocean Territory, Montserrat, cross-Caribbean (noting BVI were unable to attend) and the Falkland Islands. The data system has been discussed in detail during dedicated sessions as outlined in the workshop programmes available on project website. Presentations on the data system (available on project website) have led to informative discussions on additional fields to include in the database and also consideration of terminology (e.g. habitat classification and establishment status) to meet the needs of the UKOTs. It has been agreed that data standards used within global databases on invasive non-native species (for example GRIIS) will be applied where possible. We have been collaborating with Shyama Pagad who leads the development of GRIIS, recognising on-going work on compilation of species lists for islands globally.

We have developed detailed documentation to guide users in maintaining and interrogating the data system. We will be seeking feedback on this documentation to guide further versions but so far there have been no comments received.

Workshop reports have been provided as separate attachments.

2. INNS monitoring and surveillance scoping report and outline design of relevant initiative

2.1 One workshop with each of the clusters of UKOTs1 using consensus methods to prioritise approaches including citizen science opportunities where relevant (collaborative organisation, scheduling and delivery by Y2Q4)

Workshops have been held with Cyprus, Gibraltar, British Antarctic Territory, St Helena, Anguilla, British Indian Ocean Territory, Montserrat, cross-Caribbean (noting BVI were unable to attend) and the Falkland Islands. We have shared the on-line questionnaire with partners on all UKOTs. We have also corresponded with local experts on Pitcairn and Tristan da Cunha throughout the project but have not organised a formal workshop. We have circulated a link to a recorded presentation on the project to all UKOTs and invited further opportunities to meet on-line if that would be useful to assist with, as an example, use of the data system.

Workshop reports have been provided as separate attachments and these, alongside the draft manuscript summarising the questionnaire responses, provide an overview of the citizen science opportunities. In summary iNaturalist is seen as an excellent recording tool for engaging people with non-native species reporting and there are excellent examples of use on UKOTs including as examples for high risk invasive plants on the Falkland Islands.

2.2 Collaborative development of at least one relevant monitoring initiative, including citizen science where relevant, informed through the workshop (developed by Y3Q3)

For all UKOTs that we have met with so far, iNaturalist is seen as an excellent and accessible method for capturing biological records. Other Darwin Plus projects that have been running concurrently and including members of the UK Centre for Ecology & Hydrology project team have led to the launch of iRecord St Helena and development of the Anguilla Wildlife Recording Portal. On Cyprus citizen science activity has been increasing in recent years following on from Darwin Plus projects (specifically DPLUS56 and DPLUS88) and more recently with Darwin Fellows and Darwin Local Funding. As an example, pollinator monitoring has been a focus of activity on Cyprus and the citizen science initiative POMS-Ky has both increased public awareness and data available on pollinating insects including through studies on non-native

plants. A further example is the "Ants of Cyprus" website completed through DPLUS200 but with links to DPLUS175. It has been incredibly rewarding to recognise the synergies amongst these Darwin Plus funded projects. We have also scoped ways in which new monitoring technologies (e.g., acoustics) could be employed for specific INNS, with some territories sharing their existing experiences with these emerging approaches. approaches.

2.3 At least 3 to 10 users (depending on UKOT) registered within 3 months of launch of on-line recording for records of INNS (species included informed by the UKOT stakeholders) - collaborative development from the outset of the project and implemented through Y2 but reviewed (feedback from users) on a quarterly basis to consider needs for modifications throughout the duration of the project (developed by Y3Q3)

For most UKOTs iNaturalist will be the main application for recording non-native species. Projects can be created within iNaturalist and through Darwin Plus 151 an iNaturalist Project has been created for the British Indian Ocean Territory. In Cyprus, links to CyDAS through iNaturalist have led to the submission of thousands of records.

3. Predictive modelling tools and outputs available to inform biosecurity specifically arrival and spread of INNS including during extreme weather events

3.1 Delivery of expert-elicitation workshop for each UKOT to prioritise introductions of INNS new to the territories but also within and between island spread (concurrent with 2.1 above; collaborative organisation, scheduling and delivery by Y2Q4)

During the workshops on St Helena, Anguilla and Montserrat, we have trailed a semi-structured approach to develop climate change scenarios relevant for INNS. This has included documentation of the current climate change risks for each UKOT, based on our partners expertise, and mapping the direct and indirect pathways through which these risks might affect the establishment, spread or impact of INNS. We used this process to scope with the workshop participants on how climate change-mediated invasions might be included within current conservation and environmental management decision-making. Further information is provided through the blog and workshop reports (attached as separate files). Additionally, we developed policy briefs, on request, for St Helena and Anguilla outlining the interactions between climate change and invasive alien species.

3.2 Collaboratively developed conceptual framework including identification of data needs, informed by the workshops but also pre and post workshop data-mining, to inform climate and spread modelling (one summary report documenting the conceptual framework per UKOT completed by Y3Q1)

During our climate change sessions within the workshops with local partners and stakeholders, we have mapped both existing data and knowledge of the partners that can inform making prediction of climate change impacts, as well as the key knowledge gaps and uncertainties. We have focused these sessions on case study species, which were selected independently by the partners of each UKOT to ensure immediate relevance of the process. The section "Climate change impacts and potential to interact with invasive species" in the workshop report for St Helena (forwarded as attachment) provides an example of the approach we co-developed. At this stage, the UKOTs lack the high-resolution environmental data needed to make predictions from a statistical model but our conceptual framework has highlighted the specific sorts of knowledge that would be needed for a statistical model to be developed in the future.

3.3 One conceptual model to assess the likelihood of new spread and impact of priority INNS on the UKOTs after as well as in the absence of extreme weather events (completed by Y3Q3)

Our conceptual model aims to represent the different causal pathways through which climate change might affect invasive non-native species. We have used simple flow diagrams that were co-developed through interactive session using whiteboards/paper at the workshops, as discussed above. The workshop reports show some of the outputs after applying this conceptual model to exemplar species.

3.4 Action plan including synthesis of outcomes to inform predictions and mitigation of the risk from biological invasions following extreme weather events (completed by Y3Q3)

The last part of our climate change session including brainstorming with partners how climate change risk assessments or concerns could be useful incorporated or reported within existing systems. The preferred options varied across the UKOTS but included developing a policy brief for government officials or inclusion in existing risk assessment templates.

4. On-line resources and published research outputs produced and shared with UKOT communities through collaboratively and inclusively developed dissemination materials

4.1 Journal article providing descriptive summary of INNS on UKOTS by Y2 submitted to Journal of Applied Ecology as open access (completed by Y3Q1)

The journal article will be developed in the next 6 months and will follow a similar format to the manuscript submitted for CyDAS (included as attachment), meanwhile the activities and discussions in relation to citizen science have informed a One Earth Primer – The Global Reach of Citizen Science for Monitoring Insects.

4.2 Demonstration and training workshops (one per UKOT with two to 15 participants per UKOT) on maintaining on-line databases and data flow (concurrent with 2.1 above; collaborative organisation, scheduling and delivery by Y3Q2)

Workshops have been held with Cyprus, Gibraltar, British Antarctic Territory, St Helena, Anguilla, British Indian Ocean Territory, Montserrat, cross-Caribbean (noting BVI was unable to attend) and the Falkland Islands. During these workshops dedicated sessions have provided an overview of the on-line data system and data flow (Presentations are available on the project website). Participants have provided feedback and recommendations to ensure the usefulness of the data system to meet their needs. Details are provided in the workshop reports (separate attachments). We have circulated the supporting documentation for the data system and a link to a recorded webinar summarising the project and the data system.

By the end of year 2 there had been 235 views to the project website. Through year 3 there were 770 views from 527 active users.

4.3 Final virtual webinar with all UKOTs to deliver priority training on INNS data flow recognising development needs identified through the workshops on each UKOT alongside dissemination of on-line training materials (completed by Y3Q3)

In July 2025 we circulated an e-mail which summarises the progress through the project and signposts to the on-line resources including the supporting documentation for the on-line data system. We have also recorded a presentation that is available on-line that provides additional information for users of the data system. The link has been provided to all UKOTs.

4.4 Three popular articles and three information sheets providing information on biosecurity approaches across UKOTs available for download through the project website (completed by Y3Q3)

Over the past year the project team have worked with partners on Cyprus, Gibraltar, British Antarctic Territory, St Helena, Anguilla, Montserrat, cross-Caribbean UKOTS and South Georgia and the South Sandwich Islands to co-develop information sheets and identification guides. These are now available on-line. Furthermore, we have written six blogs (popular articles), disseminated three project newsletters and a final e-mail signposting the major outputs including a recorded webinar.

The project has been presented through many conference presentations (including most recently 16th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions), webinars and talks on the project:

- Increasing understanding of biological invasions together. Visegrad Workshop Public Lecture. University of South Bohemia, Czechia. 19 May 2025.
- Citizen science for IAS monitoring. North American Invasive Species Forum (NAISF). May 12-15 2025 (on-line)
- Early-detection and rapid response of IAS. North American Invasive Species Forum (NAISF). May 12-15 2025 (on-line)

- Horizon scanning for invasive non-native species: future threats and why prevention is key. Invasive Species Week Webinar for GBNNSS. 12 May 2025
- Predicting Biological Invasions Globally. Abingdon Naturalist's Society. 23 April 2025
- Enhancing understanding of invasive non-native species across UK OverseasTerritories. Poster presentation by Meg Williams at the British Ecological Society Annual Meeting. 10-13 December 2024
- Curbing the global threat of biological invasions: perspectives, predictions and policy. John Mumford Research to Impact Lecture. Imperial College London. 3 October 2024
- Curbing the global threat of biological invasions: perspectives, predictions and policy. Cambridge Conservation Initiative – Invasive Non-Native Species Working Group, IUCN and others. 21 May 2024
- Understanding Alien Species Through Citizen Science. Bracknell Forest Natural History Society. 20 May 2024.
- Welcome to Invasive Species Week – An introduction to biological invasions. Non-Native Species Secretariat Webinar. 20 May 2024 (on-line)
- Documenting and predicting biological invasions globally – Blodwen Lloyd Binns lecture - Invited speaker - Glasgow University and Glasgow Natural History Society – 1st November 2023
- G7 International webinar on Invasive Alien Species – 5th October 2023 (on-line)
- Horizon scanning to predict future threats from biological invasions – EASTBIO (BBSRC DTP) thematic meeting: Horizon Scanning – 14th June 2023
- OECD Forum Post (invited) Citizen science is key in helping to tackle the threat of invasive alien species https://www.oecd-forum.org/posts/citizen-science-is-key-in-helping-to-tackle-the-threat-of-invasive-alien-species - 19 May 2023

During our visit to Anguilla the Anguilla National Trust organised a public lecture and invited us to give presentations: Using data to support biodiversity conservation

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Participants HM Government of Gibraltar issued a Press Release (No: 470/2023) following the workshop on Enhancing monitoring and prevention of invasive non-native species held in Gibraltar. The St Helena Independent highlighted the project in the Autumn 2023 edition. The project was included in a long article within the Penguin News (Falkland Islands) and through an interview on Falkland Islands TV.

Activities through the project have been promoted through social media including LinkedIn and BlueSky using UK Centre for Ecology & Hydrology accounts and amplified through the project team, partners and stakeholder accounts.

There was considerable media activity following the publication of the IPBES assessment report on invasive alien species and their control. Some of the articles included examples from the UKOTs including an article in the New York Times.

Additionally Helen Roy, using insights from the project, has contributed to the development of a toolkit on invasive non-native species led by the IUCN for the CBD. Indeed this has been a major collaborative output with the contributions from Helen Roy being largely based and informed by this project.

3.2 Outcome

On-line INNS databases, coupled with surveys, including citizen science where appropriate, for monitoring, surveillance, and predictive modelling enhances biosecurity on all UKOTs and increases public engagement

0.1 Conceptual models presented in an accessible format to inform evidence-based biosecurity for at least one INNS per UKOT

Baseline condition: There is considerable local knowledge and information available for the UKOTs in many different formats and stored in different ways but there is a lack of a central repository.

Progress to date: The project brings together information and local knowledge on non-native species within an accessible on-line data system. Resources to raise awareness and increase public engagement have been co-developed. iNaturalist is seen as a useful approach for surveillance and monitoring. Conceptual models of the interactions between invasive non-native species and climate change are also being co-developed. Evidence is available within the workshop reports (included as attachments) and through the project website. Impact and outcomes have already been reported through the formal feedback but enhancing biosecurity, for example through changes in behaviour as a consequence of increased awareness of the threat of invasive non-native species, is likely to be realised over longer timescales than the project duration.

0.2 Reduction in arrival (enhancing border biosecurity) and spread (early-warning and rapid response to incursions post-border) of INNS by at least 20% annually

Baseline condition: The UKOTs implement a range of approaches to biosecurity and the capacity to enhance border biosecurity varies from one UKOT to another. Expertise and knowledge is shared across UKOTs but there are opportunities to enhance this recognising the diversity of stakeholders and organisations involved in biosecurity.

Progress to date: Baseline information consolidated through the on-line data system will allow for reporting of new incursions and ultimately trends over time in arrival and spread. Sharing of information through identification guides, factsheets, webinars and workshops will increase awareness and networking amongst stakeholders. Stakeholders from diverse organisations, from government departments, customs and border control, farming communities, NGOs, universities and research centres, have attended the workshops. There have been opportunities for knowledge exchange including, as an example, in Anguilla an information session was held as part of the workshop recognising the needs outlined by customs officials for information on species identification. Networking opportunities through the workshop have been highlighted through the formal feedback as informative and going forward the partners and stakeholders have recognised the need to extend the reach of engagement to raise awareness of the threats of invasive non-native species with additional stakeholder. As an example, the participants on St Helena recognised the need for a policy brief.

0.3 Provision of information on INNS (including impacts on biodiversity, ecosystems and ecosystem function and services) to inform strategy and awareness raising campaigns leading to increased capacity of at least two major stakeholder groups (i.e. port workers, schools or tourist organisations) to implement biosecurity

Baseline condition: Resources about some invasive non-native species are available on the UKOTs but there are opportunities to tailor materials for specific audiences.

Progress to date: As stated above, stakeholders from diverse organisations, from government departments, customs and border control, farming communities, NGOs, universities and research centres, have attended the workshops. There have been opportunities for knowledge exchange including, as an example, in Anguilla an information session was held as part of the workshop recognising the needs outlined by customs officials for information on species identification.

The co-development of resources, including postcards and identification guides, is providing additional information on invasive non-native species. Prioritisation of the type of resource, information to include and the target audiences has been achieved through the questionnaires and within the workshops (see draft manuscript summarising the questionnaire responses and the workshop reports).

0.4 At least two conservation or government officers on each of the named UKOTs demonstrate increased capacity to maintain the on-line databases, interpret the model outputs and support surveys including citizen science initiatives where appropriate by Y3Q2

Baseline condition: The data systems were not available at the start of the project and partners had varying levels of expertise in managing databases.

Progress to date: The on-line data system has been introduced to all UKOTs through initial meetings. The workshops held to date have enabled further refinement of the data systems including the data standards adopted. We have developed documentation to support users of the on-line data system and also recorded a short presentation as a summary of the project and signposting links to resources. The manuscript developed for CyDAS (included as an attachment) also provides guidance to the terms used and examples of summary figures that could be replicated for other UKOTs.

3.3 Monitoring of assumptions

Assumption 0.1. Inclusive engagement of diverse group (recognising the importance of gender balance) of stakeholders with breadth of expertise will maximise availability and relevance of information on INNS to inform conceptual models

There is considerable evidence that this assumption holds true including the recent IPBES report on invasive alien species and their control which recognises the evidence of the importance of stakeholder engagement in achieving successful management (see Stakeholder Engagement Factsheet). Experts across the UKOTs have identified and shared many resources on non-native species (Table 1). Therefore, the availability of information on INNS has increased.

Assumption 0.2. Biosecurity measures will reduce the arrival and spread of priority INNS

There is considerable evidence that this assumption holds true including the recent IPBES report on invasive alien species and their control which recognises the evidence of the importance of biosecurity measures in achieving successful management (see Biological Invasions on Islands Factsheet). Alongside DPLUS175, a masters student from the University of Exeter collaborated with all the UKOTs for a project evaluating the horizon scanning that was completed in 2019 for all UKOTs. In the project report a summary of biosecurity measures and outcomes is provided. The thesis has been attached.

Assumption 0.3. Information on environmental impacts including effects of INNS on delivery of ecosystem services will increase understanding of ecosystem function and resilience

There is a need for further evidence of environmental impacts particularly in the context of islands to support understanding of ecosystem function. Again, there is considerable evidence that this assumption holds true including the recent IPBES report on invasive alien species and their control which recognises the evidence of the importance of biosecurity measures in achieving successful management. The mapping of INNS impacts by experts on the UKOTs during the workshops considered ecosystem services and function. There is considerable potential to build on this work through a comprehensive assessment of INNS impacts across the UKOTs. Potential approaches to achieve this have been outlined through the workshops with presentations available on the project website.

Assumption 0.4 The project team includes the necessary skills to deliver data compilation, modelling and action plans and will ensure access to inclusive resources and capacity to underpin the outcome and outputs

The project team working collaboratively with partners and stakeholders have demonstrated the necessary skills including the breadth of co-developed resources (available on the project website) and positive formal feedback from the workshops.

Assumption 1.1: Workshops are not cancelled due to COVID-19 restrictions and virtual approaches are available if in-person meetings are restricted.

Virtual approaches are available and have been used to enable participants that could not meet in person to engage with the project. However, to date workshops have not had to be cancelled.

Assumption 1.2: Wide range of project stakeholders will ensure sufficient information is available and open access

Stakeholders from diverse organisations, from government departments, customs and border control, farming communities, pest control and public health experts, NGOs, universities and

research centres, have attended the workshops and contributed to the co-development of the workshop programmes and outputs.

Assumption 1.3: Collaboratively developed metrics will ensure engagement and relevance from all stakeholders ensuring diversity through best practices in engagement to achieve equality and equity and implementing best practice in inclusive communication approaches

As stated, stakeholders from diverse organisations, from government departments, customs and border control, farming communities, NGOs, universities and research centres, have attended the workshops and contributed to the co-development of the workshop programmes and outputs.

Assumption 1.4: Training accessible by a range of stakeholders ensuring consideration of diversity to maximise inclusion

The workshop programmes have been co-developed including the timing and type of sessions to maximise participation.

Assumption 1.5: Information on NNS will be available to quantify impacts of INNS on natural capital and ecosystem services.

Although there is a lack of published information, working with the partners and stakeholders to include local knowledge has been useful and led to the categorisation of the magnitude and mechanism of impact for some INNS. Potential approaches to achieve this have been outlined through the workshops with presentations available on the project website.

Assumption 2.1: Workshops are not cancelled due to COVID-19 restrictions and virtual approaches are available if in-person meetings are restricted

See Assumption 1.1

Assumption 2.2: Co-design of monitoring initiatives and testing with project team and stakeholders will ensure sufficient participation and motivation for uptake of surveys including citizen science where appropriate

Co-development and co-design has been critical to the project.

Assumption 2.3: Ensure engagement and relevance to all stakeholders recognising diversity

The workshop programmes have been co-developed including the timing and type of sessions to maximise participation. There has been excellent participation at all the workshops (list of participants included as a separate file) and positive formal feedback.

Assumption 3.1: Workshops are not cancelled due to COVID-19 restrictions and virtual approaches are available if in-person meetings are restricted

See Assumption 1.1

Assumption 4.1: Workshops are not cancelled due to COVID-19 restrictions but virtual approaches are available if in-person meetings are restricted

See Assumption 1.1

Assumption 4.2: Co-development of workshops with project team and stakeholders will ensure relevance and maximise attendance and engagement

Co-development of workshops with project team and UKOT stakeholders has ensured appropriate timing and location to maximise diversity and inclusion by ensuring availability of experts to participate in the workshop and has led to new partnerships and networks for both the project team and participants. Unfortunately, we were not able to organise on-line workshops for Pitcairn and Tristan da Cunha but have ensured contact through the dissemination of information on the project including the newsletters.

Assumption 4.3: Popular articles will be specific to the target audiences agreed collaboratively with the UKOT stakeholders to ensure accessibility and implementing best practice in inclusive communication

As stated above, stakeholders from diverse organisations, from government departments, customs and border control, farming communities, NGOs, universities and research centres,

have attended the workshops and contributed to the co-development of the workshop programmes and outputs.

4 Contribution to Darwin Plus Programme Objectives

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

Invasive non-native species are one of the five main causes of biodiversity loss globally (IPBES, 2023). DPLUS175 is committed to raising awareness of the threat of invasive non-native species and providing evidence to support action including reporting on progress towards global, regional and local targets and goals.

The project contributes to monitoring progress towards Target 6 of the Global Biodiversity Framework (*Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50 per cent, and control or eradicate invasive alien species to eliminate or reduce their impacts, focusing on priority species and priority sites*). Additionally, the project supports UN2030 Sustainable Development Goal Target 15.8 (*by 2020 introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems, and control or eradicate the priority species*) and a number of other Sustainable Development Goals especially those addressing the conservation of marine biodiversity (Goal 14) and terrestrial biodiversity (Goal 15, including but not restricted to Target 15.8), food security (Goal 2), sustainable economic growth (Goal 8) and sustainable cities (Goal 11), as well as climate change (Goal 13) and health and wellbeing (Goal 3). Indeed there are many relevant actions and agreements that will benefit from both the information collated through DPLUS175 and the development of tools and capacity including within the GB Invasive Non-native Species Strategy and response to the IUCN Honolulu Challenge (global initiative to reduce the impacts of invasive alien species) by the UK Government. Furthermore, DPLUS175 will provide information and training that supports the UKOTs in meeting obligations under the Convention on Biological Diversity. Co-development of the work programme and outputs of DPLUS175 supports delivery of the UKOTs dedicated policies and associated actions. As examples, in Anguilla, Biodiversity and Heritage Conservation Act (provide for the recovery of wildlife species that are extirpated, endangered or threatened as a results of human activity), Native Plant and Animal Habitat Conservation (Biodiversity) Policy (take the necessary measures to control intentional or accidental introduction or escape into or from the environment of alien or modified organisms that are likely to impact adversely on other organisms or on the environment). The Sovereign Base Areas in Cyprus are obliged to develop their own strategy regarding invasive alien species following the European regulation that applies to the Republic of Cyprus. DPLUS175 has increased capacity to further enhance and update the Cyprus Database of Alien Species to underpin this obligation. The Climate Change Response Work Programme (CCRWP) of the Antarctic Treaty Consultative Meeting's (ATCM's) Committee for Environmental Protection (CEP) has identified the need for ongoing surveillance programmes to identify the status of non-native species in light of climate change. BAT has highlighted that the 'Mini guide to Antarctica invasive species' co-developed by DPLUS175 will raise awareness of the risk that marine and terrestrial non-native species present to Antarctica and encourage/enable basic surveillance by tourism operators and national Antarctic programme personnel. Furthermore, the dramatic increase in visitors to the British Antarctic Territory increases the risk of non-native species introductions, but at the same time provides an opportunity for increased surveillance at popular visitors sites. The 'Mini guide to Antarctica invasive species' will be given to British Antarctic Survey personnel travelling to BAT to increase their awareness of the issue. It will also be distributed to other Antarctic Treaty Parties at the Antarctic Treaty Consultative Meeting in Kochi, India, in May 2024. Discussions with the International Association of Antarctica Tour Operators (IAATO) are underway to identify opportunities to distribute the mini guide to the >100,000 tourist that visit BAT each year. There are further UKOT specific examples to achieve strategic long-term outcomes for the natural environment, some of these are outlined in the blogs. The focus on invasive non-native species and climate change within this project is highly relevant to the overarching objective of Darwin Plus.

4.2 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.	
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	X
Transformative	The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	

Equality, Diversity and Inclusion has been embedded from the project inception and through delivery. The project team recognise the importance of engaging with a diversity of experts with respect to age, gender, cultural background, education and specialism to ensure a range of perspectives, including incorporation of local knowledge, are included within the process of expert-elicitation which is used extensively in this project. Helen Roy published a paper "Guiding principles for utilizing social influence within expert-elicitation to inform conservation decision-making" inspired by working with communities on the UK Overseas Territories and recognising the importance of participants interacting with an informed understanding of the others in the group.

There has been gender balance amongst the participants of the workshop and many of the speakers have been women. Furthermore, the blogs and news items have been led by women or early-career researchers (in some cases both). In all cases experts on the UK Overseas Territories have been invited to contribute and co-author.

The timing of the workshops was agreed with the experts on the UK Overseas Territories to ensure that the scheduled hours maximised the potential for all to participate. Participants that were unable to attend some sessions were briefed on any content to ensure that they could participate fully in ongoing sessions.

The online questionnaire circulated in advance of the workshops was difficult to complete for some participants because of, as an example, poor internet access. Therefore, the project team allowed time for participants to complete the questionnaires and add their perspectives during the start of the workshop.

A variety of approaches was used through the workshops including short talks, breakout groups and plenary discussion sessions (available on the project website). Sufficient time was given for discussions to allow everyone to share ideas but additionally participants were invited to use "post-it" notes to communicate anonymously.

There was flexibility in the workshop timetable to allow additional sessions to be included for building capacity in information needs identified by the participants. As an example, in Anguilla a two-hour session was organised for peer-to-peer knowledge exchange on invasive non-native

species with participants presenting information on species for which they were experts to others in the group. This was requested by participants attending from customs. It was an engaging and inspiring session that received excellent feedback from all. Indeed, we then invited participants at other workshops to do the same.

The feedback (evaluation questionnaires) received from the participants at the workshops was excellent with many encouraging comments provided (scanned copies of feedback attached as separate files).

5 Monitoring and evaluation

The project leader, Helen Roy, is overseeing the monitoring and evaluation, in collaboration with the project team and partners. The monitoring and evaluation plan has not changed.

The project team is monitoring project progress at the formal project meetings (every two to three months and documents the main discussion points and actions within minutes (sent as a separate file).

Participants have been invited to provide formal feedback after each workshop (feedback is sent as separate files).

Further feedback has been received from the British Antarctic Territory, Cyprus SBA, Falkland Islands and Bermuda:

- *Discussions with the International Association of **Antarctica** Tour Operators (IAATO) are underway to identify opportunities to distribute the mini guide to the >100,000 tourist that visit **BAT** each year.*
- *The mini-guide will raise awareness of the risk that marine and terrestrial non-native species present to **Antarctica** and encourage/enable basic surveillance by tourism operators and national **Antarctic** programme personnel.*
- *Working together with scientists from UKCEH and at the same time having the opportunity to interact with stakeholders and colleagues who run conservation, public health and invasive alien species initiatives at the UKOTs has been an amazing learning experience. So far, the project has helped us further enhance our ([**Sovereign Base Areas in Cyprus]**) capacity and understanding regarding invasive alien species and at the same time learn from the experience in managing invasive alien species at other UKOTs (an example the successful rat eradication programme running at the Prickly pear Anguilla).*
- *The **Sovereign Base Areas in Cyprus** are obliged to develop their own strategy regarding invasive alien species following the European regulation that applies to the Republic of Cyprus. DPLUS175 has increased our capacity to further enhance and update our Cyprus Database of Alien Species but also become involved in the creation of databases in other UK overseas territories and evolve as professionals.*
- *The whole Anguilla experience was an inspirational undertaking, but I was most inspired by the incredible work and consistency of the many people who shared their stories of tackling invasive species in the face of great adversity. Some of which I can directly use in my own projects, especially the new and exciting monitoring methods shared.*

  I think the most useful aspect that I have already started acting on is alerting others to the horizon species that we need to be on the lookout for. Prevention is better than a cure.

  It really is great to come together with people who are like-minded and as the American philosopher John Dewey once said, "We don't learn from experience we learn from reflecting on experience". This workshop reminded me how important reflection is and how important it is to share the learning that comes about." Myles Darrell - Head of Natural Heritage, Bermuda National Trust
- *The workshop you held here in March was an excellent step forward for those of us involved in invasive species research and management here in the Falklands. Hopefully we will be able to build on the resources your project has provided, to bring together the*

existing known information for the Falklands into one coherent repository, accessible to everyone. Sally Poncet, Falkland Islands

The indicators are the main way of demonstrating the contributions of the Outputs and Activities of the project to the Outcome. These indicators are documented throughout the report.

Risk register has been reviewed but there have been no changes (Annex 6).

6 Lessons learnt

The final year of the project has been productive. The engagement of partners and stakeholders, particularly through the workshops but also through on-line discussions and e-mail exchanges, has ensured the success of the year. The excellent engagement and participation from all collaborating partners and stakeholders have inspired and enabled the effective delivery of the workplan.

Organising workshops on the UKOTs is logistically challenging but support from partners has been critical to ensuring the efficient and effective delivery.

Collaborating with partners and project leaders on other relevant Darwin Plus projects has been extremely fruitful and in the final year we will hold a joint workshop for all Caribbean UKOTS in collaboration with project Darwin Plus 125.

Reconciling the budgets rapidly following each workshop and then revising the subsequent plans to maximise the opportunities, including those suggested through the formal feedback, has been critical to the co-development of the project workplans. As example, inclusion of approaches to assess socio-economic impacts.

7 Actions taken in response to Annual Report reviews

1. Significant improvements have been made in structuring the AR, which is much easier to follow than AR1. However, there remains some confusion. The material at the start of section 3 (i.e. before section 3.1) reports against Output Indicators. This material should be placed in section 3.2 (Progress towards Project Outputs). The material in section 3.2 reports against MoV. Much of this material is appropriate and useful. However, it should be added to the text already reporting against the Output Indicators. In general, this MoV material is what the AR template refers to as “evidence”. It is not necessary to report specifically against the MoV, although it is certainly useful to mention (and identify by code number) the relevant MoV(s) being discussed under each indicator. For the avoidance of doubt, there is no need to write anything in section 3 before section 3.1

The text in section 3 aligns with the template titles.

2. Please include links to any iNaturalist projects set up.

Links have been included but the project team has not set up any new iNaturalist projects because the UKOTs have been proactive in doing this themselves e.g CyDAS.

3. Should you be more proactive in setting up iNaturalist projects for each UKOT?

Please see response above. The use of iNaturalist by the partners has increased through the project driven by the experts on the UKOTs. Additionally there is an increasing interest in BioBlitzes and these are planned for the Caribbean but have also been successfully run in Cyprus for a number of years.

4. There are some inconsistencies between the number of records indicated in Table 1, and the number of records in the online database (specifically, only 4 records for Anguilla, and no records for the Falkland Islands, Gibraltar, Montserrat and Pitcairn).

Table 1 has been updated

5. Make sure to comment on whether progress has been made to identify database maintainers for each UKOT.

There is still a need to clarify who will be the designated person for each UKOT. However, we are committed to work with the UKOT experts to provide support after the project ends.

6. Standard indicators for Annex 3 should be selected from the Darwin Standard Indicators Guidance available here - https://darwinplus.org.uk/media/s2qb5mst/dplus-standard-indicators-guidance-april-2023.pdf

Standard indicators have been included in Annex 3.

7. The project-specific indicators mentioned in the AR template Annex 3 notes refers to the indicators already included in the logframe. It is not necessary to repeat these indicators (or develop new ones) in annex 3. Note also that the AR template has now dropped the confusing two “name of indicator” columns and now simply asks for the name of the standard indicator. A list of standard indicators that may be relevant is suggested in section 7.

These have been reviewed and added as appropriate.

8. The MoV for Indicator 1.1 states that the ultimate home for the database and training resources will be the GB Non-Native Species Secretariat website and/or the UKOTs biodiversity portal. Please confirm that arrangements are in place for the transfer and permanent hosting of these materials.

   Arrangements are in place. The website is now live and the link will be added to the GB Non-Native Species Secretariat website.

8 Risk Management

The project has not made any significant adaptations to the project design this year to address risk. The initial lesson’ learned from the early part of the project has enabled the register to remain unchanged.

The Risk Register is available in Annex 6.

9 Scalability and Durability

Engagement by project partners and stakeholders on the UKOTs is evidence of the increasing interest and capacity resulting from the project. The feedback (see workshop reports sent as separate files) provided by the participants at the workshops held so far highlights the perceived increase in capacity as a consequence of the project.

The project has generated considerable interest from other organisations and institutions. As examples, synergies with other Darwin Plus projects (e.g. DPLUS125, DPLUS151) have been recognised and joint activities planned (e.g. joint workshop with partners and stakeholders in BIOT – see workshop report sent as separate file).

As outlined in Section 4, the distribution of the miniguide to other Antarctic Treaty Parties at the Antarctic Treaty Consultative Meeting in Kochi, India, in May 2024 and potentially through the International Association of Antarctica Tour Operators (IAATO) will enhance the legacy of the project.

The resources developed through the project will continue to be available on the project website and through the GB Non-Native Species Secretariat website post project.

The data system will be used to inform the horizon scanning component of the Darwin Strategic project DPSTR001 “Enabling effective biosecurity in the Caribbean UK Overseas Territories”.

10 Darwin Plus Identity

The Darwin Plus funding for DPLUS175 has been recognised as supporting a distinct project with a clear identity within the UKOTs. The project partners and stakeholders that have engaged with the project have an excellent understanding and appreciation of Darwin Plus. The project team has Darwin Plus project logo has been used on all presentations given at the workshops and resourceshttps://www.ceh.ac.uk/our-science/projects/inns-ukots-resources (see as an example the miniguides). Additionally, the project team has promoted the project through conference presentations (see Section 3 for details) and the Darwin Plus logo has been included on relevant slides and within acknowledgements. Darwin Plus will be acknowledged in all publications as has been the case for the recent One Earth paper "The global reach of citizen science for monitoring insects" and for the article in the Environmental Scientist "Biological invasions: Species on the move".".

The project team have been linking social media (LinkedIN and blogs) posts to the Biodiversity Challenge Funds and Darwin Plus including tagging #Defra #DarwinPlus. @UK_CEH, @UKLadybirds and LinkedIN of Helen Roy have been the most frequently used accounts.

The project has been mentioned through various media opportunities relating to biological invasions including those following the launch of the IPBES assessment report on invasive alien species and their control which led to mention of the work on St Helena in the New York Times. As is often the case with such media opportunities, e.g. newspaper, TV and radio interviews, branding for funders is often limited but we have had some project specific media activity such as through the press release following the workshop on Gibraltar.

11 Safeguarding

[redacted]

12 Finance and administration

12.1 Project expenditure

Project spend (indicative) since last Annual Report	2024/25 Grant (£)	2024/25 Total actual Darwin Plus Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs	[redacted]			
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others				
TOTAL				

Staff employed (Name and position)	Cost (£)
Aoife Cecilie Sweeney Biodiversity Monitoring Scientist	[redacted]
David Roy Principal Scientist	
Diana Bowler Interdisciplinary Ecologist	
Emily Williams Research Associate Ecologist and Project Support	
Helen Roy Principal Scientist	
Megan Williams Quantitative Ecologist - Biological Invasions	
Stephanie Rorke Biodiversity Database Manager	
TOTAL	

Consultancy – description and breakdown of costs	Other items – cost (£)

TOTAL	

Capital items – description	Capital items – cost (£)
TOTAL	

Other items – description	Other items – cost (£)
UKOTAS – support and development including addition of a new faceted species search tool Domain registration	[redacted]
TOTAL	

12.2 Additional funds or in-kind contributions secured

Matched funding leveraged by the partners to deliver the project	Total (£)
TOTAL	

Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project	Total (£)
TOTAL	

12.3 Value for Money

- The project has been good value for money. There has been time in-kind from the JSHU who have provided expertise throughout the project. All within UKOT experts

have given their time to workshops and reviewing documents and outputs generously and in-kind.

- The workshops have been organised to be as cost-effective as possible. Bringing the Caribbean UKOTs to one workshop is an example.

13 Other comments on progress not covered elsewhere

No additional comments.

14 OPTIONAL: Outstanding achievements of your project (300-400 words maximum). This section may be used for publicity purposes.

I agree for the Biodiversity Challenge Funds to edit and use the following for various promotional purposes (please leave this line in to indicate your agreement to use any material you provide here).

Collaboration with other Darwin Plus funded projects has provided many insights and opportunities. The Darwin Fellowships and the Darwin Local Projects on the Cyprus SBAs have enabled knowledge exchange between project partners but also to other stakeholders. The ongoing work on CyDAS (developed through DPLUS56 and DPLUS88) is demonstrating a legacy of DPLUS56 and DPLUS88. There have been many publications and outputs using CyDAS and these have been informing the workplan through DPLUS175. As leaders of the ongoing work on invasive non-native species Kelly Martinou and Jakovos Demetriou have taken opportunities to share their expertise with other UKOTs through the workshops and on-line meetings. This has been immensely appreciated by everyone. Additionally, Kelly Martinou stated "*I consider myself very fortunate to be a partner of the DPLUS 175 project: Enhancing monitoring and prevention of invasive non-native species across UKOTs. Working together with scientists from UKCEH and at the same time having the opportunity to interact with stakeholders and colleagues who run conservation, public health and invasive alien species at the UKOTs has been an amazing learning experience. So far, the project has helped us further enhance our capacity and understanding regarding invasive alien species and at the same time learn from the experience in managing invasive alien species at other UKOTs (an example the successful rat eradication programme running at the Prickly pear Anguilla).*"

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No
				Yes / No
				Yes / No
				Yes / No

Annex 1 Report of progress and achievements against logframe for the life of the project

Project summary	Progress and Achievements April 2024 - March 2025	Actions required/planned for next period
Impact Ecosystem function and resilience is maintained through implementation of evidence-based biosecurity measures, underpinned by models to reduce arrival and spread of INNS particularly in the context of climate change	Resources, including compilation of information through the on-line system, have been developed to underpin biosecurity. Approaches to categorise impact and consider the effects of climate change on biological invasions have been co-developed and applied with project partners and stakeholders.	
Outcome On-line INNS databases, coupled with surveys, including citizen science where appropriate, for monitoring, surveillance, and predictive modelling enhances biosecurity on all UKOTs and increases public engagement		
Outcome indicator 0.1 Conceptual models presented in an accessible format to inform evidence-based biosecurity for at least one INNS per UKOT	Conceptual models of the interactions between invasive non-native species and climate change have been co-developed for St Helena, Anguilla, Montserrat, Bermuda, Cayman Islands, TCI and the Falkland Islands. Evidence is available within the workshop reports (included as attachments) and through the project website.	Going forward we will document and draft the approach as a peer-reviewed publication We have developed two Policy Briefs available on the project website.
Outcome indicator 0.2 Reduction in arrival (enhancing border biosecurity) and spread (early-warning and rapid response to incursions post-border) of INNS by at least 20% annually	Baseline information consolidated through the on-line data system is allowing for reporting of new incursions and ultimately trends over time in arrival and spread. Sharing of information through identification guides, factsheets, webinars and workshops is increasing awareness and networking amongst stakeholders. Stakeholders from diverse organisations, from government departments, customs and border control,	We will continue to work with the UKOTs to enhance data flow. We are pleased to have the opportunity to use the data system through Enabling effective biosecurity in the Caribbean UK Overseas Territories

	farming communities, NGOs, universities and research centres, have attended the workshops.	
Outcome indicator 0.3 Provision of information on INNS (including impacts on biodiversity, ecosystems and ecosystem function and services) to inform strategy and awareness raising campaigns leading to increased capacity of at least two major stakeholder groups (i.e. port workers, schools or tourist organisations) to implement biosecurity	Stakeholders from diverse organisations, from government departments, customs and border control, farming communities, NGOs, universities and research centres, have attended the workshops. There have been opportunities for knowledge exchange including, as an example, in Anguilla an information session was held as part of the workshop recognising the needs outlined by customs officials for information on species identification. The co-development of resources, including postcards and identification guides, is providing additional information on invasive non-native species. Prioritisation of the type of resource, information to include and the target audiences has been achieved through the questionnaires and within the workshops.	
Outcome indicator 0.4 At least two conservation or government officers on each of the named UKOTs demonstrate increased capacity to maintain the on-line databases, interpret the model outputs and support surveys including citizen science initiatives where appropriate by Y3Q2	The on-line data system has been introduced to all UKOTs through initial meetings. The workshops have enabled further refinement of the data systems including the data standards adopted. The recorded presentation providing an overview of the project will be shared with all UKOTs.	There is a need for further work with project partners to agree an approach going forward to ensure capacity for maintaining the data systems and provision of summary information for reporting.
Output 1 **On-line <u>open</u> Non-Native Species (NNS) databases developed for all UKOTs with CyDAS as a prototype system**		
Output indicator 1.1 Baseline information available openly for at least 100 NNS for each UKOT (collated by Y3Q2)	See Table 1.	There are a few outstanding resources to compile.

Output indicator 1.2 Collaborative development of an approach to derive a relevant biodiversity indicator for INNS on each UKOT underpinned by key metrics for evaluating biosecurity efficiency (developed by Y3Q3)	During the 9 workshops held project partners and stakeholders have prioritised delivery of summary information in various formats with simple indicators through summary statistics likely to be sufficient.	Consider enhancing the on-line system to include automated reporting using simple summary figures agreed by the UKOTs.
Output indicator 1.3 Documented approaches to quantifying impacts, including on natural capital and ecosystem services outlined within a guidance document with implementation for the priority INNS identified by the UKOTs (developed by Y3Q1)	Approach co-developed through workshops with St Helena, Anguilla and Montserrat EICAT and SEICAT presentations available on the project website	Delivery of approach to 11 UKOTs through workshops Document approach through summary guidance available to all UKOTs
Output indicator 1.4 One workshop with each of the UKOTs, including in some cases clusters[1] of UKOTs, to consider options for updating and maintaining the NNS database (collaborative organisation, scheduling and delivery by Y3Q1)	Nine in person workshops held to date with programmes and presentations available on-line	
Output 2 **INNS monitoring and surveillance scoping report and outline design of relevant initiative**		
Output indicator 2.1 One workshop with each of the clusters of UKOTs[1] using consensus methods to prioritise approaches including	Nine in person workshops held with programmes and presentations available on-line	Questionnaire circulated to all remaining UKOTs and information provided as a summary draft paper

[1] Six workshops, in some cases including clusters of UKOTs, are planned: 1. Caribbean UKOTs (Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat, Turks and Caicos Islands; geographically, Bermuda is not Caribbean, but will be included in the Caribbean cluster due to relative proximity to Caribbean UKOTs and North America); 2. British Indian Ocean Territory (BIOT); 3. South Atlantic UKOTs (Falkland Islands, South Georgia and the South Sandwich Islands); 4. Mid-Atlantic UKOTs (Saint Helena and Tristan da Cunha); 5. Gibraltar; 6. British Antarctic Territory (BAT). All workshops would be in person (covid permitting – but managed on-line if needed) noting that the BIOT and BAT workshops would be held in London and Cambridge respectively with all others involving travel by the project team to the UKOTs or one of the UKOTs within the cluster. An additional final on-line webinar will also be delivered and open for all UKOTs.

citizen science opportunities where relevant (collaborative organisation, scheduling and delivery by Y2Q4)	Questionnaire was circulated in advance of the workshop and expert-elicitation and consensus approaches were used to refine the priorities	
Output indicator 2.2 Collaborative development of at least one relevant monitoring initiative, including citizen science where relevant, informed through the workshop (developed by Y3Q3)	iNaturalist is seen as an excellent and accessible method for capturing biological records and will be the relevant initiative for most of the UKOTs. However, other recording apps have been shared (e.g. for pollinators and butterflies)	
Output indicator 2.3 At least 3 to 10 users (depending on UKOT) registered within 3 months of launch of on-line recording for records of INNS (species included informed by the UKOT stakeholders) - collaborative development from the outset of the project and implemented through Y2 but reviewed (feedback from users) on a quarterly basis to consider needs for modifications throughout the duration of the project (developed by Y3Q3)	Multiple users engaged through iNaturalist projects developed by the UKOTs.	
Output 3 **Predictive modelling tools and outputs available to inform biosecurity specifically arrival and spread of INNS including during extreme weather events**		
Output indicator 3.1 Delivery of expert-elicitation workshop for each UKOT to prioritise introductions of INNS new to the territories but also within and between island spread (concurrent with 2.1 above; collaborative organisation, scheduling and delivery by Y2Q4)	Nine in person workshops held to date with programmes and presentations available on-line Questionnaire provides information on priority invasive non-native species. Questionnaire was circulated to all remaining UKOTs and information has been summarised.	
Output indicator 3.2	The conceptual framework was developed during the workshops on St Helena, Anguilla and Montserrat. The	

Collaboratively developed conceptual framework including identification of data needs, informed by the workshops but also pre and post workshop data-mining, to inform climate and spread modelling (one summary report documenting the conceptual framework per UKOT completed by Y3Q1)	framework aims to map the possible causal pathways through which climate change might affect the establishment, spread, impact and success of management of invasive species. Framework introduced to UKOTs through workshops Summaries available in the workshop reports	
Output indicator 3.3 One conceptual model to assess the likelihood of new spread and impact of priority INNS on the UKOTs after as well as in the absence of extreme weather events (completed by Y3Q3)	The above-mentioned framework was tested for multiple INNS ointly decided by the workshop participants.	
Output indicator 3.4 Action plan including synthesis of outcomes to inform predictions and mitigation of the risk from biological invasions following extreme weather events (completed by Y3Q3)	During the workshops, we scoped with participants different options for assessing and communicating climate change risks to possible target audiences including government officials (policy briefs), internal management (climate change risk assessments including invasive non-native species) and the public (infographics).	
Output 4 **On-line resources and published research outputs produced and shared with UKOT communities through collaboratively and inclusively developed dissemination materials**		
Output indicator 4.1 Journal article providing descriptive summary of INNS on UKOTS by Y2 submitted to Journal of Applied Ecology as open access (completed by Y3Q1)	Journal article will be developed through year 3, meanwhile the activities and discussions in relation to citizen science have informed a One Earth Primer – The Global Reach of Citizen Science for Monitoring Insects	Going forward we will be writing journal article including metadata on the information system but meanwhile a manuscript is in review for CyDAS
Output indicator 4.2 Demonstration and training workshops (one per UKOT with two to 15 participants per UKOT) on maintaining on-line	Workshops have included an introduction to the information system. Presentations are available on the project website.	

databases and data flow (concurrent with 2.1 above; collaborative organisation, scheduling and delivery by Y3Q2)		
Output indicator 4.3 Final virtual webinar with all UKOTs to deliver priority training on INNS data flow recognising development needs identified through the workshops on each UKOT alongside dissemination of on-line training materials (completed by Y3Q3)	Recorded presentation available for all.	
Output indicator 4.4 Three popular articles and three information sheets providing information on biosecurity approaches across UKOTs available for download through the project website (completed by Y3Q3)	Multiple articles, blogs and resources developed and available through the project website.	

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: Ecosystem function and resilience is maintained through implementation of evidence-based biosecurity measures, underpinned by predictive models to reduce arrival and spread of INNS particularly in the context of climate change			
Outcome: On-line INNS databases, coupled with surveys, including citizen science where appropriate, for monitoring, surveillance, and predictive modelling enhances biosecurity on all UKOTs and increases public engagement	0.1 Conceptual models presented in an accessible format to inform evidence-based biosecurity for at least one INNS per UKOT 0.2 Reduction in arrival (enhancing border biosecurity) and spread (early-warning and rapid response to incursions post-border) of INNS by at least 20% annually 0.3 Provision of information on INNS (including impacts on biodiversity, ecosystems and ecosystem function and services) to inform strategy and awareness raising campaigns leading to increased capacity of at least two major stakeholder groups (i.e. port workers, schools or tourist organisations) to implement biosecurity 0.4 At least two conservation or government officers on each of the named UKOTs demonstrate increased capacity to maintain the on-line databases, interpret the model outputs and support surveys including citizen science initiatives where appropriate by Y3Q2	0.1 Evidence-based biosecurity reports including summary of conceptual models. The reports will be designed collaboratively through consultation with project stakeholders both during on-line meetings and through the workshops with wider group of beneficiaries. The information will benefit the UKOTs in providing a baseline for monitoring the UKOTs agreed objectives for INNS but also for monitoring progress towards global biodiversity targets. 0.2 Species distribution maps and collaboratively developed metrics on the pressure from INNS available on-line and following best practice in inclusive communication 0.3 Development of comprehensive and accessible databases to collate information on past and ongoing biological invasions to provide the information on which to base communication campaigns, biosecurity plans and inform policy decision-making	Inclusive engagement of diverse group (recognising the importance of gender balance) of stakeholders with breadth of expertise will maximise availability and relevance of information on INNS to inform conceptual models Biosecurity measures will reduce the arrival and spread of priority INNS Information on environmental impacts including effects of INNS on delivery of ecosystem services will increase understanding of ecosystem function and resilience The project team includes the necessary skills to deliver data compilation, modelling and action plans and will ensure access to inclusive resources and capacity to underpin the outcome and outputs

		0.4 Workshop reports and on-going monitoring through on-line feedback forms to assess capacity of stakeholders to maintain the database	
Outputs: **1. On-line <u>open</u> Non-Native Species (NNS) databases developed for all UKOTs with CyDAS as a prototype system** Delivered through WP1 WP1 Task leader: David Roy, Megan Williams and Steph Rorke UKOT collaborators: All will be consulted through development and approaches to ensure legacy. Training will be delivered on maintaining the databases (WP4) with collaborators will review options for ongoing updates	1.1 Baseline information available openly for at least 100 NNS for each UKOT (collated by Y3Q2) 1.2 Collaborative development of an approach to derive a relevant biodiversity indicator for INNS on each UKOT underpinned by key metrics for evaluating biosecurity efficiency (developed by Y3Q3) 1.3 Documented approaches to quantifying impacts, including on natural capital and ecosystem services outlined within a guidance document with implementation for the priority INNS identified by the UKOTs (developed by Y3Q1) 1.4 One workshop with each of the UKOTs, including in some cases	1.1 NNS databases, NNS distribution maps. Contents will be downloadable directly from the website (either the Non-Native Species Secretariat website or the UKOTs biodiversity portal where relevant. 1.2 Outline approach to deriving a biodiversity indicator for INNS 1.3 Training and documentation on impact classification available on-line 1.4 Training and on-line resources available on maintaining the database	Workshops are not cancelled due to COVID-19 restrictions and virtual approaches are available if in-person meetings are restricted. Wide range of project stakeholders will ensure sufficient information is available and open access Collaboratively developed metrics will ensure engagement and relevance from all stakeholders ensuring diversity through best practices in engagement to achieve equality and equity[3] and implementing best practice in inclusive communication approaches Training accessible by a range of stakeholders ensuring consideration of diversity to maximise inclusion

[3] We will ensure best practice in engaging with a diverse group of experts with respect to age, gender, cultural background, education and specialism in providing a range of perspectives, including incorporation of indigenous and local knowledge. We will ensure gender balance across the project team and participating stakeholders implementing approaches to maximise inclusion. We will ensure that people have enough time to prepare for tasks and we will invite questions and encourage discussions using a variety of approaches (e-mail, on-line meetings and face-to-face when possible) to establish an environment in which individuals feel confident to exchange information and express ideas in the format they are most comfortable with using. We will also seek feedback from a diverse group of project participants and review the responses within the context of social inclusion.

	clusters[2] of UKOTs, to consider options for updating and maintaining the NNS database (collaborative organisation, scheduling and delivery by Y3Q1)		Information on NNS will be available to quantify impacts of INNS on natural capital and ecosystem services.
2. INNS monitoring and surveillance scoping report and outline design of relevant initiative Delivered through WP2 WP2 Task leader: Helen Roy and Angeliki Martinou UKOT collaborators: Monitoring including citizen science initiatives will be co-created with the UKOT stakeholders	2.1 One workshop with each of the clusters of UKOTs[1] using consensus methods to prioritise approaches including citizen science opportunities where relevant (collaborative organisation, scheduling and delivery by Y2Q4) 2.2 Collaborative development of at least one relevant monitoring initiative, including citizen science where relevant, informed through the workshop (developed by Y3Q3) 2.3 At least 3 to 10 users (depending on UKOT) registered within 3 months of launch of on-line recording for records of INNS (species included informed by the UKOT stakeholders) - collaborative development from the outset of the project and implemented through Y2	2.1 Workshop reports outlining opportunities and barrier to monitoring including citizen science on each UKOT including formal feedback through an on-line form distributed to all participants for monitoring and evaluation 2.2 Monitoring, including citizen science initiatives where appropriate, developed alongside accompanying dissemination materials and guidance documents. Monitoring and evaluation through on-line feedback form and also an invitation to contact the project leader with suggestions 2.3 On-line recording application e.g. iNaturalist or Indicia-based system implemented for submission of species selected by the UKOT	Workshops are not cancelled due to COVID-19 restrictions and virtual approaches are available if in-person meetings are restricted Co-design of monitoring initiatives and testing with project team and stakeholders will ensure sufficient participation and motivation for uptake of surveys including citizen science where appropriate Ensure engagement and relevance to all stakeholders recognising diversity

[2] Six workshops, in some cases including clusters of UKOTs, are planned: 1. Caribbean UKOTs (Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat, Turks and Caicos Islands; geographically, Bermuda is not Caribbean, but will be included in the Caribbean cluster due to relative proximity to Caribbean UKOTs and North America); 2. British Indian Ocean Territory (BIOT); 3. South Atlantic UKOTs (Falkland Islands, South Georgia and the South Sandwich Islands); 4. Mid-Atlantic UKOTs (Saint Helena and Tristan da Cunha); 5. Gibraltar; 6. British Antarctic Territory (BAT). All workshops would be in person (covid permitting – but managed on-line if needed) noting that the BIOT and BAT workshops would be held in London and Cambridge respectively with all others involving travel by the project team to the UKOTs or one of the UKOTs within the cluster. An additional final on-line webinar will also be delivered and open for all UKOTs.

	but reviewed (feedback from users) on a quarterly basis to consider needs for modifications throughout the duration of the project (developed by Y3Q3)	stakeholders for recording INNS. Monitoring and evaluation through on-line feedback form and also on-line forum to achieve knowledge exchange but also feedback and trouble-shooting	
3. Predictive modelling tools and outputs available to inform biosecurity specifically arrival and spread of INNS including during extreme weather events Delivered through WP3 WP3 Task leaders: Helen Roy and Diana Bowler UKOT collaborators: Expert-elicitation workshops will involve all UKOT stakeholders to prioritise INNS and inform the development of the models)	3.1 Delivery of expert-elicitation workshop for each UKOT to prioritise introductions of INNS new to the territories but also within and between island spread (concurrent with 2.1 above; collaborative organisation, scheduling and delivery by Y2Q4) 3.2 Collaboratively developed conceptual framework including identification of data needs, informed by the workshops but also pre and post workshop data-mining, to inform climate and spread modelling (one summary report documenting the conceptual framework per UKOT completed by Y3Q1) 3.3 One conceptual model to assess the likelihood of new spread and impact of priority INNS on the UKOTs after as well as in the absence of extreme weather events (completed by Y3Q3) 3.4 Action plan including synthesis of outcomes to inform predictions and mitigation of the risk from	3.1 Workshop report (noting the prioritisation has already been achieved for Anguilla and TCI (and is currently on-going for Tristan da Cunha and St Helena) through previous collaborative research by the proposed project team but not within the context of extreme weather events) 3.2 Conceptual framework developed to inform predictive spread modelling and documented within a short report for each UKOT 3.3 Models for at least one INNS per UKOT with models initially piloted with case studies collaboratively developed on priority INNS agreed with the Caribbean UKOTs 3.4 Mitigation approaches based on predictive modelling documented with action plans	Workshops are not cancelled due to COVID-19 restrictions and virtual approaches are available if in-person meetings are restricted Co-development of workshops with project team and UKOT stakeholders will ensure appropriate timing and location to maximise diversity and inclusion by ensuring availability of experts to participate in the workshop including new partnerships and networks

	biological invasions following extreme weather events (completed by Y3Q3)		
4. On-line resources and published research outputs produced and shared with UKOT communities through collaboratively and inclusively developed dissemination materials Delivered through across WPs but with focus in WP4 Task leaders: Helen Roy and Angeliki Martinou UKOT collaborators: inform and co-develop training and resources. Monitoring and evaluation to inform training	4.1 Journal article providing descriptive summary of INNS on UKOTS by Y2 submitted to Journal of Applied Ecology as open access (completed by Y3Q1) 4.2 Demonstration and training workshops (one per UKOT with two to 15 participants per UKOT) on maintaining on-line databases and data flow (concurrent with 2.1 above; collaborative organisation, scheduling and delivery by Y3Q2) 4.3 Final virtual webinar with all UKOTs to deliver priority training on INNS data flow recognising development needs identified through the workshops on each UKOT alongside dissemination of on-line training materials (completed by Y3Q3) 4.4 Three popular articles and three information sheets providing information on biosecurity approaches across UKOTs available for download through the project website (completed by Y3Q3)	4.1 Draft article accompanied by blog and downloadable poster for dissemination to diverse groups of stakeholders and beneficiaries 4.2 Workshop report including attendance figures and feedback from monitoring and evaluation. All presentations available on-line through the project website alongside training materials and resources. 4.3 Download statistics available in Y1, 2 and 3	Workshops are not cancelled due to COVID-19 restrictions but virtual approaches are available if in-person meetings are restricted Co-development of workshops with project team and stakeholders will ensure relevance and maximise attendance and engagement Popular articles will be specific to the target audiences agreed collaboratively with the UKOT stakeholders to ensure accessibility and implementing best practice in inclusive communication

Activities

Note to ensure value for money the workshops scheduled on each UKOT will be within six clusters (Caribbean UKOTs, BIOT, South Atlantic UKOTs, Mid Atlantic UKOTs, Gibraltar and BAT) to minimise travel costs and enable networking. We will plan to have one in person workshop with representatives from each UKOT within the clusters[1] (covid permitting) noting that the BIOT and BAT workshops would be held in London and Cambridge respectively with all others involving travel by the project team to the UKOTs or one of the UKOTs within the cluster. The Cyprus SBAs will be represented by Dr. Angeliki Martinou, project partner at the JSHU, attending all workshops. The workshops will be organised such that activities 1.4, 2.1, 3.1, 4.2 will be scheduled within the same visit. There will be an additional final webinar which will be virtual to bring together all UKOTs within the project. This final webinar with representatives from all UKOTs will enable priority training and development needs identified through the workshops with clusters of UKOTs to be addressed alongside dissemination of on-line training materials.

Inclusive communication best practice will be implemented throughout the development of all resources.

1.1 Compilation and harmonisation of available baseline information on non-native species in collaboration with the stakeholders on each UKOT and through review of relevant databases e.g. GBIF

1.2 Collaboratively develop an approach for a relevant biodiversity indicator for INNS on each UKOT underpinned by key metrics (e.g. temporal trends in number of INNS) for evaluating biosecurity efficiency

1.3 Implement approaches to quantifying impacts using current evaluation frameworks such as the IUCN Environmental Impact Classification of Alien Taxa (EICAT) including on natural capital and ecosystem services (information added to NNS database through 1.1)

1.4 Workshops with clusters[1] of UKOTs to collaboratively develop processes for updating and maintaining the NNS databases

2.1 Workshops with clusters[1] of UKOTs to consider opportunities and challenges for approaches to INNS surveys including citizen science

2.2 Collaborative development of relevant surveys informed through the workshop (informed through 2.1)

2.3 Implement on-line recording (e.g. using iNaturalist or indicia) for general INNS surveillance

3.1 Expert-elicitation workshop with clusters[1] of UKOT to agree INNS representing greatest threat to the territories through arrival and spread within and between islands (where the UKOT comprises multiple islands)

3.2 Consult with the stakeholders and modelling experts to identify data needs to inform climate conceptual models

3.3 Develop, synthesise and interpret outcomes from conceptual models to inform predictions and mitigation of the risk from biological invasions following extreme weather events

4.1 Draft and publish journal article providing descriptive summary of INNS and predictions of future threats from INNS on UKOTS by Y2 submitted to Journal of Applied Ecology as open access

4.2 Demonstration and training workshops on maintaining on-line databases and data flow with clusters[1] of UKOTs

4.3 Final virtual webinar with all UKOTs to deliver priority training on INNS data flow recognising development needs identified through the workshops on each UKOT alongside dissemination of on-line training materials

4.4 Collaboratively write three popular articles and information sheets with information on biosecurity approaches available for download through the project website including Darwin Newsletter articles and promote through press releases 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. N.B. The annual total is not cumulative. For each year, only include the results achieved in that year. The total achieved should be the sum of the annual totals.

DPLUS Indicator number	Name of indicator	If this links directly to a project indicator(s), please note the indicator number here	Units	Disagg.	Year 1 Total	Year 2 Total	Year 3 Total	Total achieved	Total planned
DPLUS-A01	Number of people from key national and local stakeholders completing structured and relevant training	DPLUS175-A04	People		0	131	31	162	
DPLUS-A03	Number of local/national organisations with improved capability and capacity as a result of project.	DPLUS175-A04	Organisations		0	51	19	70	
DPLUS-CO1	Number of best practice guides and knowledge products published and endorsed	DPLUS175-A03	Number		3	8	1	12	
DPLUS-CO11	Average yearly number of Website Visitors.		Number		0	235	770	1005	
DPLUS-C15	Number of Media related activities.	DPLUS175-D04a	Number		0	15	7	22	3
DPLUS-C16	Number of records added to accessible databases.	DPLUS175-A01	Number	None	2669	1069	4913	7931	>1400

Project specific indicators

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DPLUS175-A01	Baseline information available openly for at least 100 NNS for each UKOT	Number of INNS included within databases for the UKOT	Number	None	2669	1069	4193	7931	>1400

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DPLUS175-A02	Collaborative development of an approach to derive a relevant biodiversity indicator for INNS on each UKOT underpinned by key metrics for evaluating biosecurity efficiency	Documented approach to collaborative development of an approach to derive a relevant biodiversity indicator for INNS on each UKOT underpinned by key metrics for evaluating biosecurity efficiency	Number	None	0	0	0	0	13[4]
DPLUS175-A03	Documented approaches to quantifying impacts, including on natural capital and ecosystem services outlined within a guidance document with implementation for the priority INNS identified by the UKOTs	Guidance document to quantifying impacts, including on natural capital and ecosystem services, with implementation for the priority INNS identified by the UKOTs	Number	None	0	1	0	1	1
DPLUS175-A04	One workshop with each of the UKOTs, including in some cases clusters[5] of	NNS on-line database training workshops for each UKOT	People	Gender	0 (noting on-line introductory	9	2	9 in person 2 on-line	9 in person 2 on-line

[4] Indicators were discussed at every workshop but the participants considered other outputs to be more valuable at this time including identification resources and so focus was given to developing identification guides. However, there is the possible for some automated simple summary graphs from the on-line data using approaches developed within CyDAS (Cyprus)

[5] Six workshops, in some cases including clusters of UKOTs, are planned: 1. Caribbean UKOTs (Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat, Turks and Caicos Islands; geographically, Bermuda is not Caribbean, but will be included in the Caribbean cluster due to relative proximity to Caribbean UKOTs and North America); 2. British Indian Ocean Territory (BIOT); 3. South Atlantic UKOTs (Falkland Islands, South Georgia and the South

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
	UKOTs, to consider options for updating and maintaining the NNS database				meetings documented in Annex 4)				
DPLUS175-B01	One workshop with each of the clusters of UKOTs[1] using consensus methods to prioritise approaches including citizen science opportunities where relevant	Number workshop reports approved by UKOT project partners	Number	None	0 (although note Annex 4 includes summary of on-line meetings)	12	3	15 includes blogs and workshop reports and 10 of 14 UKOTs have engaged through workshops	11
DPLUS175-B02	Collaborative development of at least one relevant monitoring initiative, including citizen science where relevant, informed through the workshop	Number of citizen science initiatives for INNS co-developed	Number	None	0	7 (+3)	0 (noting the UKOTs are increasingly developing iNaturali	10	13

Sandwich Islands); 4. Mid-Atlantic UKOTs (Saint Helena and Tristan da Cunha); 5. Gibraltar; 6. British Antarctic Territory (BAT). All workshops would be in person (covid permitting – but managed on-line if needed) noting that the BIOT and BAT workshops would be held in London and Cambridge respectively with all others involving travel by the project team to the UKOTs or one of the UKOTs within the cluster. An additional final on-line webinar will also be delivered and open for all UKOTs.

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
							st projects)		
DPLUS175-B03	At least 3 to 10 users (depending on UKOT) registered within 3 months of launch of on-line recording for records of INNS (species included informed by the UKOT stakeholders) - collaborative development from the outset of the project and implemented through Y2 but reviewed (feedback from users) on a quarterly basis to consider needs for modifications throughout the duration of the project	Number of users (depending on UKOT) registered within 3 months of launch of on-line recording for records of INNS	People	None (although gender may be possible)	0	0	0	0[6]	>40
DPLUS175-C01	Delivery of expert-elicitation workshop for each UKOT to prioritise introductions of INNS new to the territories but also within and between island spread	Number of workshop reports approved by UKOT project partners	Number		0	7	6	13 (includes blogs)	9 in person 2 on-line
DPLUS175-C02	Collaboratively developed conceptual framework including identification of data needs, informed by the workshops but also pre and	Number of conceptual models co-developed with UKOT project partners	Number		0	3 UKOTs but multiple	6 UKOTs but multiple INNS	9	13

[6] Many of the UKOTs have independently developed iNaturalist projects and the uptake of these has exceeded the planned level of engagement.

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
	post workshop data-mining, to inform climate and spread modelling					INNS included			
DPLUS175-C03	One **conceptual model** to assess the likelihood of new spread and impact of priority INNS on the UKOTs after as well as in the absence of extreme weather events	Number of models co-developed with UKOT project partners	Number		0	1 delivered on 3 UKOTs	6 but for multiple INNS	7	1
DPLUS175-C04	Action plan including synthesis of outcomes to inform predictions and mitigation of the risk from biological invasions following extreme weather events	Number of action plans including synthesis of outcomes to inform predictions and mitigation of the risk from biological invasions following extreme weather events	Number		0	0 but drafts under development within workshop programmes	2 policy briefs	2	13
DPLUS175-D01	Journal article providing descriptive summary of INNS on UKOTS by Y2 submitted to Journal of Applied Ecology as open access	At least one journal article providing descriptive summary of INNS on UKOTS and including metadata descriptions	Number		0	0	1 for CyDAS and 1 for all UKOTs in draft	1	>1
DPLUS175-D02	Demonstration and training workshops (one per UKOT with two to 15 participants per UKOT) on maintaining on-line databases and data flow	At least two people on each UKOT trained to use the on-line data systems	People		0	131 (7 demonstration workshops UKOTs with	31 (2 demonstration workshops UKOTs with	162	>26

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
						multiple attendees - see participants lists)	multiple attendees - see participants lists)		
DPLUS175-D03	Final virtual webinar with all UKOTs to deliver priority training on INNS data flow recognising development needs identified through the workshops on each UKOT alongside dissemination of on-line training materials	At least 26 people attend the final webinar	People		0	0	*Possibly 28 recorded webinar will be circulate to all UKOTs assuming 2 people per UKOT viewing)*	Possibly 28	>26
DPLUS175-D04a	Three popular articles providing information on biosecurity approaches across UKOTs available for download through the project website	Three popular articles providing information on biosecurity approaches across UKOTs available for download through the project website	Number		0	4 (blogs) 1 popular article	2 (blogs) various media articles including Penguin News	7	3
DPLUS175-D04b	Three information sheets providing information on biosecurity approaches across UKOTs available for download through the project website	Three information sheets providing information on biosecurity approaches across UKOTs available for download through the project website	Number		0	3 ID sheets underdevelopment	0	3	3

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)
Enhancing information on INNS across the UKOTs	On-line webinar	Helen Roy	Female	UK		
The Cyprus Database of Alien Species (CyDAS)	Journal	Jakovos Demetriou et al	Male	Cyprus	In review	
Protecting the unique biodiversity of the Falklands	Blog	Emily Williams 2025	Female	UK		https://www.ceh.ac.uk/news-and-media/blogs/protecting-unique-biodiversity-falklands
Sharing information on invasive non-native species across the Caribbean UK Overseas Territories	Blog	Helen Roy and Zoya Buckmire	Female	UK and Grenada		https://www.ceh.ac.uk/news-and-media/blogs/sharing-information-invasive-non-native-species-across-caribbean-uk-overseas
The global reach of citizen science for monitoring insects	Journal	Helen E. Roy Angeliki F. Martinou Michael J.O. Pocock Victoria Werenkraut David B. Roy 2024	Female	UK	One Earth	https://www.cell.com/one-earth/fulltext/S2590-3322(24)00138-6
Biological invasions: species on the move	Journal	Helen E. Roy	Female	UK	Environmental Scientist	https://www.ceh.ac.uk/our-science/projects/ukot-blogs
Collaboration to enhance information flow on non-native species across the UK Overseas Territories	Blog	Helen E. Roy 2023	Female	UK		https://www.ceh.ac.uk/news-and-media/blogs/collaboratively-exploring-approaches-enhance-information-flow-non-native
https://www.ceh.ac.uk/news-and-media/blogs/identifying-and-managing-invasive-	Blog	Megan Williams Emily Williams Jakovos Demetriou	Female	UK		https://www.ceh.ac.uk/news-and-media/blogs/identifying-and-managing-invasive-non-

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)
Enhancing information on INNS across the UKOTs	On-line webinar	Helen Roy	Female	UK		
non-native-species-concern-gibraltar		2023				native-species-concern-gibraltar
Reducing the threat of invasive non-native species on St Helena	Blog	Megan Williams Keith Bensusan Rhian Guillem Clive Crisp Darren Fa Amy Swift 2024	Female	UK		https://www.ceh.ac.uk/news-and-media/blogs/reducing-threat-invasive-non-native-species-st-helena
ID Guides for BAT and Gibraltar	Postcards	Megan Williams Kevin Hughes Jasmine Lee	Female	UK		https://www.ceh.ac.uk/our-science/projects/inns-ukots-resources

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)

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?	Yes
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	Yes
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.	No
If you are submitting photos for publicity purposes, **do these meet the outlined requirements (see section 14)?**	N/A
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.	Yes
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 encouraged to develop a risk register.	Yes
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	