

Darwin Plus Main: Annual Report

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

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

Submission Deadline: 30th April 2024

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

Darwin Plus Project Information

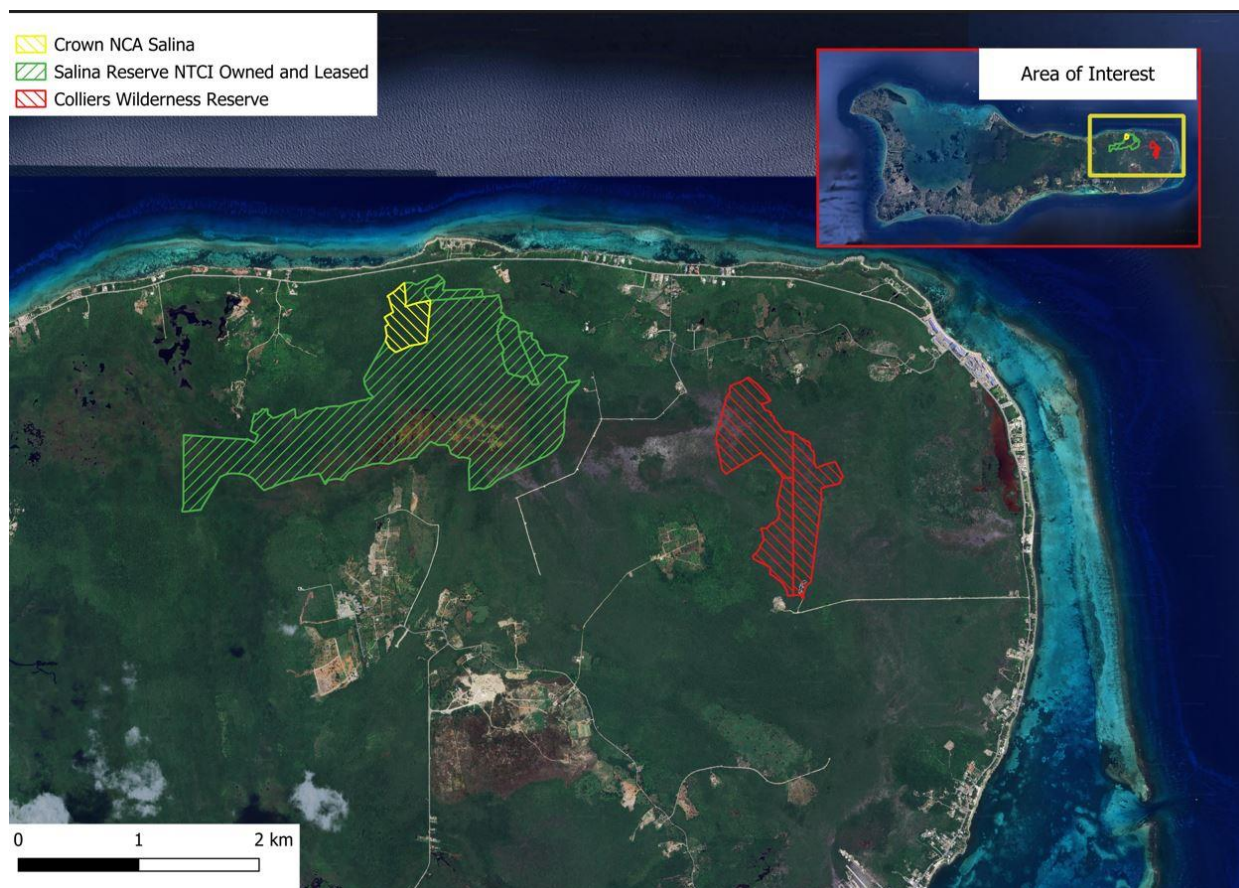
Project reference	DPLUS163
Project title	Preserving endemic threatened wildlife populations through effective protected area management.
Territory(ies)	Cayman Islands
Lead Partner	National Trust for the Cayman Islands
Project partner(s)	Royal Society for the Protection of Birds
Darwin Plus grant value	GBP £439,897.00
Start/end dates of project	1 April 2022-31 March 2025
Reporting period (e.g. Apr 2023-Mar 2024) and number (e.g. Annual Report 1, 2)	April 2023-March 2024
Project Leader name	Frank [REDACTED]
Project website/blog/social media	
Report author(s) and date	Michael [REDACTED], Louise [REDACTED], Andrew [REDACTED], Catherine [REDACTED] Wendy [REDACTED]

1. Project summary

Populations of endemic wildlife on Grand Cayman are largely restricted to within Protected Areas (PAs) including Grand Cayman’s flagship species the Blue Iguana (*Cyclura lewisi*). Pressures on Grand Cayman’s natural environment remains high, underlining the need for a sound and well-managed PA network. The National Trust of the Cayman Islands owns and leases PAs on Grand Cayman, but currently is short of the in-house capacity needed for effective PA management.

As a focal species, Blue Iguanas demonstrate the crucial need for PAs: despite extensive conservation efforts since 2001, population monitoring strongly indicates a lack of natural recruitment, suggesting that the restored wild population is unlikely to be able to sustain itself over the long term. This project builds knowledge to fill essential data gaps and better inform current PA management, and concurrently aims to build local capacity and encourage community support through the delivery of education and outreach programmes to achieve sustainable conservation actions and inform future PA management decisions.

By boosting on-island PA management capacity, understanding critical habitat, conducting regular biodiversity surveys, identifying threats and their impacts, developing mitigation strategies and increasing regular PA patrols, we will be able to better inform PA management to effectively restore and safeguard these important wildlife areas.



Map showing the two protected areas.

2. Project stakeholders/partners

While NTCI is leading this project, we are working closely with project partner **RSPB** to achieve project objectives. RSPB currently provides project management support, technical advice, and project oversight. This support has been particularly useful considering staff turnover within the National Trust during the last year.

The Cayman Islands Government **Department of Environment (DoE)** is integral to this project. Providing support, technical advice, assisting with monitoring and management of alien species and leading on the analysis of project data and results - particularly related to the data being collected from camera traps, and iguana distance sampling monitoring. Two DoE members sit on the BIC steering committee so are on hand to offer input into relevant project aspects including land purchase, habitat developments, data analyses and camera trapping work.

Wildlife Conservation (WCS) at Bronx Zoo has been an official off-island veterinary partner of NTCI since 2002. WCS travels to Grand Cayman annually to carry out health screening and analysis of veterinary results for various species, in particular the Blue Iguana population within and outside the PAs. During Year 2 of this project WCS supported this project collecting and analysing the disease screening activities and led on the production of a peer-reviewed scientific paper that reported on the data collected to date.

St Matthew's University (SMU) is a private offshore medical and veterinary school based on Grand Cayman, SMU became an official partner of NTCI in 2021 and is represented on the Blue Iguana Conservation Steering Committee. SMU provides the NTCI with on-island veterinary technical support and advise and assist with health checks, sample data collections

for disease screening. Students from the school are being recruited to assist in the analysis of camera trap data in Year 3 of the project.

Local Communities: have been engaged in project activities through educational and public outreach events including Blue Iguana Day. The North Side District Committee Chair has been training community members in field survey techniques. We are also widely encouraging the use of our E-guana Citizen Science Mobile App for reporting sighting of Blue Iguanas with the aim of better engaging local communities in the work of NTCI while also bolstering our knowledge on the distribution of these animals. The Blue Iguana Conservation programme held a public release of a Blue Iguana in the Colliers Wilderness Reserve with students from the local East End Primary School and the MP of East End, Isaac Rankine; it was an opportunity to connect the iconic endemic species to the local community and educate about the importance of the PA. NTCI have commissioned a film maker to make a film about the importance of PAs on Grand Cayman. NTCI has been engaging with a local landowner around the unauthorised building of a road between Salina and Colliers, which would impact the integrity of the two PAs. The Cayman Islands Regiment (local military reservists) have been involved in setting out camera traps.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1: Enhance in-Territory capability to restore, monitor and manage protected areas

Activity 1.1: Recruitment of Field Officer and Assistant Field Officer positions

Following some difficulties in recruitment for these positions, they were both filled in Year 1 of the project: unfortunately, due to difficulties with the issuing of work permits and personal health reasons, the appointed Field Officer worked remotely for several months and then resigned the position in June 2023. Another Field Officer was recruited, who worked on-island from July to September 2023, before also resigning, and this post has remained unfilled since then. As a further complication, the Operations Manager of the Blue Iguana Project (BIC), who was the project lead for this grant, left the Trust in July 2023; his replacement was in post from July to December 2023. Since then, this key post has been vacant. The Assistant Field Officer has been in post for the whole of Year 2. Following a project review meeting between NTCI and RSPB in March 2024 with consideration of the outstanding project activities we agreed that a change of focus is required in the key NTCI staff roles that are allocated to supporting this project – the Field Officer position will now be readvertised as a Project Officer, taking on more responsibility for project implementation including administration, co-ordination and reporting functions for the project, whilst the BIC Operations Manager, when recruited, will maintain overall oversight and line manage the Project Officer, and support with the financial management of this project. Both roles are currently being readvertised on an international scale following a lack of suitable applicants applying for the positions when advertised locally in February-March 2024.

Activity 1.2. Develop training course materials and content.

Training is on-going throughout this project and is based on the needs of the organisation (which is fluid depending on the experience and backgrounds of project staff). Over the past year we identified that financial management was an area that could be improved within the NTCI, as such in June 2023 the RSPB facilitated a 3-5 day face-face training course in financial management with 5 NTCI staff (Catherine Childs, Nicole Best, Laura Butz, Andrew Galbraith, and Stuart Wilson). The RSPB also facilitated a March 2024 visit to continue capacity building in non-profit financial management with the NTCI's finance manager who is still in his first year in non-profit accounting. The RSPB will continue to support the Trust in building capacity in this area for the remainder of the project (and beyond). Any other focused training activities will be identified and developed once recruitment of the Project Officer and BIC Facilities Manager is achieved as further training and capacity needs will depend on their own personal experiences and skills. In the meantime, we have identified that organisational training on Protected Area Management Effectiveness Evaluations should be undertaken at the end of the project.

Activity 1.3 Minimum of 7 in-Territory staff, students and volunteers attend training course.

In September 2023, six National Trust staff members attended training on plant identification facilitated by Stuart Maller, chair of the National Conservation Council (Annex 4.1). In March 2024, four members of the Cayman Islands regiment were trained in deployment of camera traps (Annex 4.1). In July 2023, the Field Officer and Assistant Field Officer attended training in management of invasive alien vertebrates led by the DoE on Little Cayman (Annex 4.2).

In Year 3, students at the local veterinary school (SMU) will be trained in analysing camera trap images and will examine those collected in March-April 2024.

Activity 1.4 Samples are collected from target species within both PAs for disease analysis, and 1.5 Disease samples are sent off island for detailed analysis and results reported and shared.

Samples collected during the first year of this project have now been analysed by the Wildlife Conservation Society, who in 2023 with the support of this project published a peer reviewed scientific paper (Calle et al., 2023; Annex 4.3). In response to the reviewer's question from the Year 1 Annual Report, *Helicobacter* has been historically discovered in asymptomatic Green Iguanas sampled in Grand Cayman (Conley et al., 2021), and it is this evidence that is being referred to.

The intention was to sample non-native Carolina Anoles (*Anolis carolinensis*) (which are present primarily in the QEII Botanic Park and thus pose a large potential threat to the BIC programme) in Year 2, to discover whether alternative repositories of the disease exist, and discussions with WCS took place, but due to the departure of the BIC Programmes Manager, this was not organised for this year. This could take place in Y3.

Activity 1.5-1.6 Two patrols are conducted in each PA [Colliers and Salina] annually.

Patrols have been undertaken periodically (for example, in September 2023 a dead Blue Iguana was observed during a patrol). The Assistant Field Officer and other BIC staff are regularly in the reserves, which allows them to check on incursions and other activity. The NTCI is exploring the possibility of using drones for patrols.

Activity 1.7 -1.8 completed in year 1. An example data upload is included for Salina (Annex 4.4).

Activity 1.9 Trails established and maintained for each PA.

Trails have been established and continue to be maintained (Annex 4.5a and 4.5b).

Activity 1.10 Boundaries clearly marked and accessible for monitoring in each PA

Where survey trails follow the boundary, these have been cut and marked, and are accessible for monitoring. Boundary markers have been placed where accessible, but cutting all boundary lines has not been possible due to lack of staff.

Output 2: PA management plans for Salina and Colliers Wilderness Reserve better protect natural habitat and guide targeted conservation actions for focal species for the Grand Cayman Blue Iguana

2.1 Development and implementation of management plan for Colliers Wilderness Reserve and 2.2 Development and implementation of management plan for Salina Reserve

These plans are drafted and currently in review with relevant stakeholders within and outside of the NTCI and should be completed ahead of schedule: we submit the drafts as evidence (Annex 4.6a and 4.6b)

2.3 and 2.4 Distance sampling survey carried out in Colliers Wilderness Reserve and Salina Reserve to monitor Blue Iguana population

Distance sampling by transect was carried out in the release area of Salina in Year 1, in a continuation of historical surveys that have taken place every two to three years by the DoE, as was envisaged (Annex 4.7). The camera trap grid was laid out in Salina in the same year, to allow for comparison of survey techniques. Following analysis by Harrisburg University, the

decision was taken that camera trapping was a more effective survey method, allowing for abundance to be estimated using camera-based sampling.

2.5 Camera trap grid designed and set up to monitor population abundance of Blue Iguanas within and outside of the PAs

This activity was intended to determine the population outside the release areas, and therefore overlaps with activities 2.3 and 2.4. Cameras were placed in Colliers in March 2024, and retrieved in April, and images (examples in Annex 4.8) will be examined over the coming year for distance analysis. In March 2025, cameras will again be deployed in Salina, as this will be the ongoing monitoring method for Blue Iguanas in these two PAs. In response to the Reviewer's comment from the Year 1 Annual Report, the results of this work should allow for population estimates for Blue Iguanas to be calculated. There are historical estimates of abundance in release areas of both PAs, as outlined in the report, but not of overall populations in the wider landscape. A decision has been taken to not monitor iguanas by cameras outside reserve boundaries due to sensitivity around landowner consent. Draft management plans include improving relations with protected area neighbouring landowners as a key action item, and as the context surrounding PA conservation on island changes, this private monitoring may be possible. However, the camera trapping within the PAs could be expanded further beyond the release areas, which would give an estimate of the population density in the wider landscape, and allow the analysis foreseen in activities 2.9-2.15 to take place.

Activity 2.6 and 2.7: Capture and tag hatchling, sub-adult and adult iguanas for radio tracking for age and sex survivability and dispersal emigration.

Through desk-based review of best practice methods and consultation with DoE (based on their experiences tracking both the Blue Iguana and the Sister Islands Rock Iguana), we have now purchased 7 x Q4000ER LS17500 GPS loggers from Telemetry Solutions. These are GPS loggers so can record at finer spatial resolutions than the originally intended radio loggers. Data will also be automatically downloaded to the receiving base station, thus saving time in radio tracking across the difficult terrain of the PAs. Due to the size of these loggers, they will be unsuitable for attachment to juveniles. We will therefore now focus our efforts on attaching them to adults that we are releasing from the head start facility so that we can monitor their movements and initial survival. This work has been delayed due to a lack of staff in post but can commence in Y3 if this situation is remedied, although it will be of limited value if carried out at the wrong time of year – this needs to be done in January-March when adult males are most active and seeking out females. DoE are willing to commit staff to assist with attaching loggers. Because of this timing issue (March 2025 would be the end of the project), we intend to apply for an extension to allow for the results of the tracking to be properly reported within this grant. Regardless of the outcome of that application, we would commit to attaching these loggers in Year 3 as the forthcoming data would remain valuable for Blue Iguana conservation.

Activity 2.9-2.15: *Scheduled for completion by the end of the project – this is dependent on activities 2.3-2.7; and see note above about timing. Note that the tracking will now be of adults, so that some of the elements, such as determining movements of hatchlings, will need to be redirected towards adults.*

Output 3: PA management improved to support Blue Iguana and other priority wildlife conservation through effective community engagement and capacity building.

3.1-3.2. Determine and implement an appropriate trapping schedule for Invasive Alien Vertebrates (IAVs) within Salina and Colliers Reserve.

Completed Year 1, and trapping continues.

Activity 3.3 Complete presence and absence targeted biodiversity survey for endemic fauna and flora and IBA trigger species within both PAs annually for the duration of the project.

An annual bird survey covering part of the Salina Reserve was carried out in March 2024 – the report from the previous year's survey is submitted (Annex 4.9). This report also contains plant

species lists from other surveys done by the NTCl. While the Field Officer was in post, they and the Assistant Field Officer carried out bird surveys at Salina (Annex 4.10).

In response to the reviewer's comment from the first year report, the grant application stated that we would be doing presence-absence surveys of biodiversity, although admittedly output 2 refers to monitoring population trends of key species, and indicator 0.2 associated with the Outcome states that we will measure changes in abundance; all of which requires quantitative surveys. Surveys in the third year should be able to provide abundance estimates of some taxa, and we intend to put in place a schedule for the future to assess changes in abundance. Habitat variables were recorded from camera locations in Salina (Annex 4.11), and more detailed vegetation data is available from 2022 (Annex 4.12), so these may form the basis of assessing temporal changes.

Activity 3.4 Design and implement a targeted education and outreach campaign to support the conservation of key endemic wildlife and better practices in the management of PAs by Q4 YR2.

An outreach program is being implemented. RSPB is currently supporting the development of a more focused and targeted action plan for the final year of the project, with more focus on key target groups, such as children. In April 2023, schoolchildren from East End Primary School, accompanied by Isaac Rankine (MP for the East End and currently Minister of Youth, Sports & Heritage) participated in the release of Charles, a Blue Iguana named in honour of the King's coronation (Annex 4.13). A social media campaign took place in October 2023, with social media posts (Facebook, LinkedIn and Instagram) developed for a period of 4 weeks with material promoting Cayman's protected areas (Annex 4.14). Further material has been developed (Annex 4.15) and will form part of Year 3's outreach program. The grant has also been promoted in the NTCl's Annual Report (Annex 4.16, pp 28-30).

The NTCl Environmental Policy and Development Officer (EPDO) is developing the NTCl National Invasive Alien Vertebrate Strategy. Education and outreach are a main component based on the NTCl's historic strengths. Based on successful efforts elsewhere, the focus of the program is increasing knowledge and pride of the native species, allowing for education on the importance of combatting their threats. This work is supporting the efforts of both this project and DPLUS128. The EPDO and Sister Islands Outreach Officer have been implementing this educational approach in local schools from nursery level up through the local university (Annex 4.17). The EPDO has also begun a project to collect and disseminate stories from community members on what a particular native species means to them, evidence from around the world indicates that an emotional connection and narrative storytelling are effective methods for building conservation support.

Activity 3.5 Current volunteer programme is expanded by at least 10 new volunteers annually for duration of the project.

The Blue Iguana Guardians program has not had any new volunteers in Year 2 of the project, due to lack of staff to carry out training. However, the previous year had exceeded the goal for the entire three-year project, and many of those continue as volunteers.

Activity 3.6. Updated signage to be designed and installed within both PAs and at other key NTCl sites to increase the knowledge of project and outcomes.

Trail signs have been put in place in both reserves (Annex 4.18). At the time of writing, we are uncertain what signage is referred in the half-year report, and have been contacting the previous project lead for clarification.

3.7 -3.8 Mobile application to be promoted and people encouraged and trained to use the app by the end of Q1 YR3. Mobile application is used by at least 5,000 people by end of YR3.

The mobile app has been widely promoted, with poster boards used to promote the app at multiple community events (e.g. Mangrove Day; Annex 4.19). Other promotion has been in our Annual Report 2022-2023, and on the NTCI's Facebook, Instagram and LinkedIn channels (posts on October 13th, November 7th, November 21, March 4th), and via Blue Iguana Conservation channels (post dates include May 9th and July 30th 2023, and February 9th, and 16th, and March 15th and 22nd 2024). To date (Year 1 and 2 combined), 863 individuals are currently using the app. Around 100 individuals have used the app to report iguanas (there is some duplication of user IDs, so it is hard to be exact about user numbers). We feel that the target for this activity should be revised downwards, as 5,000 individual users would constitute over 8% of the adult population of the Cayman Islands. One thousand downloads would be a realistic achievement, and activities in Year 3 should focus on encouraging those who have downloaded the app to use it to report iguanas.

3.2 Progress towards project Outputs

Output 1: Enhance in-Territory capability to restore, monitor and manage protected areas

This project has demonstrated some of the difficulties of recruiting and retaining staff in Caribbean territories: a small pool of qualified local residents, and barriers to incomers through work permit difficulties and the cost of living, have meant that this project has rarely had the full complement of staff envisioned. Despite this, there has been positive progress towards the completion of Output 1. The Assistant Field Officer has been in post for the whole of Year 2 and has been carrying out tasks such as trail clearing and invasive animal trapping, as well as taking part in training provided by DoE and the chair of the NCC. The Cayman Islands Regiment have been involved in laying out camera grids, and other NTCI staff have stepped in to make sure that key tasks have been carried out. Project partners have identified a clear way forward for recruiting project staff by re-defining project roles and responsibilities, and in the meantime existing staff at NTCI continue to be trained and capacity is being built within the organisation (e.g. through financial training in June 2023 and March 2024). With new staff in place, some of the tasks that had been expected to be completed in Year 2 can be successfully carried out in Year 3. It is also important to acknowledge the importance of our strong partnerships with international scientific institutes; for example, the publication of a scientific manuscript that details the prevalence of *Helicobacter* in Blue Iguanas will help to inform the development and implementation of our Protected Area Management Plans.

We continue to implement biological and ecological monitoring using traditional and more novel methods to better understand the values and importance of the Protected Areas and are working towards collating all of this valuable information to inform the updating of IBA and KBA designations for these sites.

Output 2: PA management plans for Salina and Colliers Wilderness Reserve better protect natural habitat and guide targeted conservation actions for focal species such as the Grand Cayman Blue Iguana

Our efforts to achieve this output are well underway and some are ahead of schedule, with management plans having already been drafted and circulated for wider consultation before finalising. These plans will be living documents, as the collection and analysis of further data in this project, particularly Blue Iguana abundance and distribution, will inform future iterations. Key data collection in Year 3 of the project will provide important information about Blue Iguana abundance, distribution and habitat management, and this will be the highest priority going forward.

Output 3: PA management improved to support Blue Iguana and other priority wildlife conservation through effective community engagement and capacity building.

Through training initiatives in collaboration with our project partners and with our wider networks our capacity to conduct biodiversity monitoring including invasive species has increased as part of this project. We continue to work with our Blue Iguana Volunteer Guardian Programme, engaging more than 90 volunteers, who assist with project activities such as data entry, and whose presence at BIC frees up NTCI staff to carry out project work. We have

engaged the Cayman Islands Regiment to assist with setting out and collecting camera traps. We promote the project widely, with E-guana posters present at all our events. More than 850 individuals have downloaded our E-guana app, which is short of the target stated in the application. However, this still represents over 1% of the adult population of the Cayman Islands, which is significant reach.

Outcome:

Improved condition of Protected Areas (PAs) harboring key endemic wildlife populations through effective management plans and additional capacity to implement them.

The progress towards project outcomes involves several main aspects and monitoring will be carried out via the indicators included in the logframe:

0.1 Scientific knowledge gaps filled and data used to inform conservation actions for Blue Iguanas in two key PAs, to stabilise the current decline in population numbers and monitor impact of management changes. Data collected is used to develop the National Conservation Action Plan [NCAP] and an updated Red List Assessment.

Work has been progressing throughout the first two-years of this project to fill essential data gaps via field work: distance surveys of Blue Iguanas, biodiversity surveys, camera trap data collection, invasive species trapping, sampling for *Helicobacter*, the latter of which has been published in Year 2. In Year 3 of the project, we intend to use the data collected to update IBA/KBA designations, National Conservation Action Plans and to update the Blue Iguana IUCN Red List assessment.

0.2 Population monitoring of key endemic wildlife within the PAs, including Important Birding Area (IBA) trigger species, Grand Cayman parrot and native reptiles, to explore programme efficacy.

Field surveys have been ongoing, including the collection of presence/absence surveys and camera trap data collection. Data gaps are currently being identified and data collection during year 3 of the project will focus on filling these gaps as well as implementing the GPS tracking of Blue Iguanas component of the project.

0.3 Habitat suitability and important wildlife corridors understood and fed into PA management, restoration and the NTCI Natural Heritage Protection Strategy.

This outcome indicator is planned to be achieved by the end of the project and relies on the collection and collation of biological and ecological data to inform Protected Area Management. Specifically, data is being collected to identify suitable habitat and important wildlife corridors. The management strategies being developed are adaptive and will respond and incorporate new actions and threats as identified during its implementation, as such ecological and biological data collected during the course of this project will, when necessary, be used to update the management strategy at the end of the project.

0.4 Protected Area Management Effectiveness is measured and evaluated, and management plans are developed for two PAs.

The two management plans are already in draft and awaiting feedback from a wider stakeholder group. Some of the key actions identified within the plan are already being implemented (including invasive species control and biological monitoring) and plans will officially be adopted during Year 3 of this project. During the final months of this project we intend to take time to reflect on the implementation of the plans through training in protected area management effectiveness evaluation (PAME).

0.5 Local capacity improved to implement PA management plans and long term IAV management, monitor impacts and respond effectively.

Using both traditional and novel approaches for monitoring, IAV management has been a major focus of the project to date, including feral cat trapping and green iguana control. Local capacity in biological and ecological monitoring has increased through our Blue Iguana Guardians programme, E- Iguana citizen science app and our collaboration with the local veterinary

school. This increase in technical capacity and knowledge will lead to greater sustainability in implementing effective protected area management.

3.3 Monitoring of assumptions

Assumption 1: Risk that recruitment and retention of staff and volunteers may be hampered by issues such as the recent COVID-19 crisis.

Assumption 2 There will be sufficient interested applicants with the required skills and knowledge to successfully recruit and that staff will remain in post throughout the 3-year contract. There will be no delays, such as problems with visas, to interrupt commencement of employment. We believe that given the experience of the local government partners and NTCl experience of recruitment and visa applications process there will be no delays.

While we have encountered issues in recruiting project staff, these difficulties were not due to the Covid-19 pandemic. In fact, a lack of interest from local Caymanians to apply for project positions and a stricter work permitting process for international workers has led to difficulties in recruitment. There have also been issues with staff retention that were not predicted, and this has had an impact on the ability to fully deliver on the project in its first two years. However, we believe we have adapted to this by redefining job descriptions and roles and have just begun the process of recruitment at an international scale. We are confident that the project positions will be filled by June 2024: if not, with project partner RSPB we will discuss other interim measures such as secondment of staff from RSPB, more support in the form of RSPB staff sabbaticals, or shorter-term appointments of people with suitable skills.

Assumption 3 that field work and required patrols possible despite extreme weather conditions, COVID-19 restrictions or other foreseeable issues.

The Cayman Islands were impacted by Hurricane Idalia in August 2023, but based on our teams experience we were able to effectively plan and manage work schedules to ensure that all work is not impacted. Moving forward into Year 3 we are always mindful of the risk of storms and do not plan for extensive field activities during the peak hurricane period (Aug-Oct); however, weather forecasting is generally accurate in informing us 1-2 weeks in advance of when we may be impacted by a storm so we can take appropriate action and alter a plans if there is a risk of a storm heading our way.

There are now no Covid-19 restrictions in place in the Cayman Islands, so this risk is no longer considered pertinent.

Assumption 4: There is available expertise and knowledge within the key partners, to design, implement and deliver training course for capacity building and that COVID-19 restrictions or other issues, such as hurricanes, will halt training. We are confident that the extensive experience within the partnership will enable us to ensure high quality training is delivered. Due to the availability of online platforms (e.g., Zoom) and on-island expertise, the training course will be successfully delivered without delays.

This assumption still holds true: training and capacity building has been ongoing throughout the project conducted both through virtually and in-persons, as such has not been affected by severe weather or Covid-19 (which is no longer a relevant concern). The bigger issue has been the lack of staff recruitment and retention, which has made it difficult to tailor or schedule training. Once new staff are in place, we will draw on the expertise of our project partners to inform and facilitate training through whatever means is deemed as most appropriate.

Assumption 5: Trained volunteers continue to commit time and efforts to support IAV management and PA monitoring for the long term.

We have established a dedicated and inspired volunteer base in the Blue Iguana Guardian Programme. Although no new Guardians have been trained in Year 2, there is a large bank of previously-trained Guardians, and we are confident that volunteers will continue to support project activities as the NTCl has good history of long-term volunteers and a large number of interested and committed individuals keen to be trained.

Assumption 6: Citizen science app will be well received and have positive uptake and engagement.

The E-guana app has been well-received, but the initial target may have been unrealistic. This assumption has been met, but we may have miscalculated the proportion of the population that would use the app. The role of the app is more likely to be as an engagement tool, as a gateway to understanding the PA management that is require for Blue Iguanas.

Assumption 7: Trails and boundaries will be maintained and cleared regularly along with regular patrols conducted by trained volunteers and staff.

This assumption is related to a project activity – trails need to be cut to allow for effective monitoring. Trails are being cut regularly but we have also recognised that the extent of trails originally planned may not be necessary and may also increase the risk of spread of harmful invasives (e.g. invasive plants colonising bare ground and cleared areas providing pathways for invasive vertebrates). With this in mind we have begun to explore other options for monitoring the park’s boundaries, including drones.

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

The Cayman Island Government passed the National Conservation Law (NCL) in 2013 – the most significant piece of legislation dealing with environmental conservation in the Territories history. Part 3 of this legislation deals with effective management of protected areas via high quality management plans. This project is helping NTCI reach the goals of this legislation by the creation of the management plans for the Salina and Colliers Wilderness Reserves. The NCL also calls for the effective species management in Part 4 of the Law. As a schedule 1 species the Blue Iguana is in the highest category of protection under the Cayman Islands law and is mandated to have a National Conservation Action Plan. The improved monitoring of this species and the protected areas that it depends upon on will allow for the creation of the National Conservation Action Plan for this species.

The project will support the UK and Cayman Islands’ responsibilities under the Convention on Biological Diversity (Article 8(h) concerning alien species; Article 12 concerning research and training; Article 13 concerning public education and awareness). This project is also helping the Cayman Islands meet Sustainable Development Goals laid out by the United Nations: Specifically SDG’s: 4, 8, 13, 15 & 17. **Goal 4 Quality Education** and **Goal 8 0 Decent Work and Economic Growth** - through training courses and capacity building initiatives designed for both staff and volunteers will engage the community and build skills and support for future employment opportunities. **Goal 13: Climate Action** – the project will develop and promote mechanisms such as long-term climate data collection and will incorporate climate change-thinking into protected area management plans. **Goal 15 - Life on Land** - a key project objective is to take action to reduce the degradation of natural habitats in Protected Areas and thereby halt the loss on biodiversity and significantly reduce the impact of IAVs by the control or eradication or priority species so to protect the extinction of threatened endemic species. **Goal 17: Partnerships for the goals** – the project partners have worked to increase on-island capacity, creating sustainable development through sharing knowledge, expertise, technology and financial resources.

5. Gender Equality and Social Inclusion (GESI)

Please quantify the proportion of women on the Project Board ¹ .	Two out of six
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¹ A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

<p>Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women².</p>	<p>We work in close partnership with many partner organisations both on and off island</p> <ol style="list-style-type: none"> (1) The current Director of the DoE is Ms Gina Ebanks (2) The advisor for the breeding programme at Sand Diego Zoo is Ms Tandora Grant (3) The chair of the NTCI board is Ms Melanie Carmichael, and 70% of the board are women. (4) Our primary veterinary contact as SMY is the Dean Ms Sam Shields (5) Project partners RSPB include Ms Ms Louise Soanes and Ms Wendy Cain working on the project. The Chief Executive of the RSPB (Beccy Speight) and the Head of Global Conservation (Katie-jo Luxton) are both women.
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GESI Scale	Description	Put X where you think your project is on the scale
Not yet sensitive	The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach	
Sensitive	The GESI context has been considered and project activities take this into account in their design and implementation. The project addresses basic needs and vulnerabilities of women and marginalised groups and the project will not contribute to or create further inequalities.	X
Empowering	The project has all the characteristics of a 'sensitive' approach whilst also increasing equal access to assets, resources and capabilities for women and marginalised groups	
Transformative	The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	

In line with Government guidelines and the 2011 Gender Equality Act, the NTCI and other on-island partners have implemented new guidelines for the recruitment and training of staff, volunteers students and interns, The aim is to create opportunities for an even gender split

² Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

where possible and to ensure flexible schedules, languages and facilitation styles appropriate for gender- representative participation.

We monitor the participation of women in all project-related activities and are ready to take action to address imbalances if they appear to exist. To date we have recorded a fairly even split of female:male participation in activities, including at least 60% of volunteers identifying as women and at least 50% of women attending outreach events such as the International Blue Iguana Day. Our community outreach activities are often geared toward families and are attended by high numbers of women and children.

6. Monitoring and evaluation

NTCI recognises the importance of monitoring and evaluation as an essential part of this project. As primary project partners, NTCI and RSPB meet monthly to review project activities and, recognising the important of face-to-face meetings in this digital age, RSPB project manager Charlie Butt visited the Cayman Islands in March 2023 to conduct a thorough project evaluation with NTCI Director and staff. Progress of the report is given to the Blue Iguana Conservation Steering Committee meetings: the BIC Steering Committee doubles as the project steering board and meets quarterly.

7. Lessons learnt

The biggest challenge facing this project has been the recruitment and retention of staff. The Cayman Islands are one of the most expensive places in the world to live, and while we budgeted generously to fill project positions, the roles do not appear to be attractive enough to convince local Caymanians to take them up. This may be because we can only offer short-term contracts; while difficulties in being able to recruit internationally with work permitting issues has slowed the process of recruiting externally. As a small organisation, the NTCI does not have a large pool of established staff members to move onto projects when staffing becomes an issue. For future projects we need to evaluate how better to attract local Caymanians into project roles, and how to structure the projects (for example, bringing external expertise in for short periods while simultaneously training local people in necessary skills). We understand that staff recruitment has also been an issue for our National Trust colleagues elsewhere in the Caribbean UKOTs and will endeavour to discuss these challenges more broadly to better address them in future projects.

In the remainder of this project, we will prioritise the use of our human resources to collect the core data associated with this project: tracking iguanas, camera trapping and biodiversity surveys. To do this sufficiently we will require an extension (that we will formally request following the submission of this annual report), so that tracking data collected in early 2025 can be analysed and reported on for this project.

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

A number of questions/issues were raised in our last annual report, we have addressed these in the body of the report, and also below:

Comment 1: Information about the implementation of activities is very brief and mainly confirms they have been conducted. The project should provide additional information to allow activities to be better assessed: for instance sharing information about what climate data is being captured, detailing the number of people and/or days spent patrolling the PA, or providing specific details about the number of IAV trapping events that have taken place and how these trapping of IAVs was implemented.

We have tried to be more specific in the description of these tasks in section 3.1 and provide suitable evidence to support our reporting of activities.

Comment 2: The project detailed that disease screening has likely confirmed that there is no trace of the Helicobacter pathogen in any of the islands reptiles aside from the

green iguana, where screening has confirmed this pathogen is present. However, reviewing the data provided in the molecular report in Annex 4.1., it seems that all samples returned a negative result for the presence of *Helicobacter*. Could you please clarify this.

The positive *Helicobacter* records date from before the current project: the recent sampling regime was to determine whether it resides in asymptomatic Blue Iguanas.

Comment 3: Initial biodiversity surveys have focussed on presence/absence of key endemic species, creating a detailed list of key species of fauna and flora found in the PAs. However, this survey technique does not allow for changes in species abundance. Please can you clarify whether the project is also planning to measure species abundance of any priority species, particularly the Blue Iguana, to complement the initial presence/absence surveys and help monitor and evaluate project performance. If so, then it is recommended that the project establishing baselines for population sizes of key species as soon as possible to ensure project performance can be properly evaluated.

The application states that we would be doing presence-absence surveys, while simultaneously stating that we would estimate populations of, for example, IBA trigger species. Thus far, biodiversity surveys have been presence-absence, but we intend to complement that in Year 3 with quantitative surveys. Blue Iguana abundance has been estimated for limited release areas, but the camera trap surveys should allow population estimates to be made for the wider reserves, although not into the wider countryside as the surrounding areas are privately owned.

Comment 4: Relating to point 3 above, no baseline figures have been presented for Blue Iguana population size or the abundance of any other target species, with data collection regarding population numbers being highlighted as a key activity for the remainder of the project. This seems a bit late given the project has already been underway for one year and would have likely already influenced improved PA conditions through its activities. The project should establish baselines for population sizes of key species, including the Blue Iguana, as soon as possible to ensure that it can monitor and evaluate performance of activities on abundance of key species.

Baselines for the Blue Iguana are being determined through camera trap data analysis – the terrain and accessibility of the Protected Areas make traditional monitoring approach difficult, so working with experienced staff from DoE we have now established a new sampling methodology working with camera traps – we are currently in the process of analysing this data. The biggest intervention for Blue Iguanas has been taking place for over twenty years: the release of young adults. While we expect PA management to have a positive impact on Blue Iguanas, and we wish to understand the impact of, in particular, trapping on invasive species, the first step is to understand the abundance of Blue Iguanas in the reserves, which is still not fully understood. This should be determined in Year 3 of the project.

Comment 5: Has the project considered using Management Effectiveness Tracking Tool (METT) Assessment as a way to measure improvements in the management and governance of the two PAs. If not, then this could allow a baseline to be created for the management of the PA, which can then be evaluated at project end.

Yes, we have, while the management plans are currently under review, we do plan to work with the RSPB to hold training in Protected Area Management Effectiveness Evaluation (PAME) towards the end of the project – this will build capacity within NPT and other local partners to better adaptively manage their protected areas. A review of the PAME tools available will be discussed and the most appropriate selected for more detailed training.

9. Risk Management

No new risks have been identified and we continue to consider, review and mitigate for those risks already identified.

10. Sustainability and legacy

The sustainability and legacy of the project are deeply rooted in several key initiatives and strategies that ensure the ongoing effectiveness of managing the Colliers and Salinas Protected Areas, as well as other protected areas in the Cayman Islands.

First, the project has made significant strides in building local capacity through training programs for both staff and volunteers. By equipping individuals with the necessary skills and knowledge, the project ensures that there is a sustainable workforce capable of effectively managing and conserving these vital areas beyond the project's lifespan.

Additionally, the establishment and nurturing of relationships and partnerships with both national and international organizations play a crucial role in sustaining the project's momentum. These partnerships not only provide ongoing support but also foster collaboration and resource-sharing, ensuring a collective effort towards long-term conservation goals.

Furthermore, the integration of novel technology for biodiversity monitoring represents a significant advancement in the project's sustainability efforts. The utilization of infra-red cameras, drones, and camera trapping methodology not only enhances the efficiency of data collection but also reduces resource expenditure. This technological innovation not only empowers local capacity but also ensures the continuity of the monitoring program, providing valuable insights for informed decision-making in the long term.

Overall, through a combination of capacity building, strategic partnerships, and technological innovation, the project lays a solid foundation for the sustainable management of protected areas in the Cayman Islands, ensuring their preservation for future generations.

11. Darwin Plus identity

Every effort is being made to publicise the Darwin Initiative. The Darwin logo is used alongside the NTCI logo and the BIC logo in documents, reports and presentations related to the project (see annexes previously referred to), and our social media posts mention the Darwin grant and support for this project (Annex 4.20). The Darwin Initiative is discussed during the Blue Iguana Conservation facility tours. Our E-iguana citizen app also highlights the Darwin Initiative.

Through the many projects that have now been funded by the Darwin Plus scheme in the Cayman Islands, we believe there is good general awareness of the funding scheme by higher level Government to local communities,

12. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	No
Have any concerns been reported in the past 12 months	No
Does your project have a Safeguarding focal point?	Yes, <i>Frank</i> [REDACTED], [REDACTED]
Has the focal point attended any formal training in the last 12 months?	No
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 75% [3 out of 4] Planned: 100% [all new employees]

Has there been any lessons learnt or challenges on Safeguarding in the past 12 months?
Please ensure no sensitive data is included within responses.

None

Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.

New employees go through adequate training protocols and existing staff certifications are renewed as necessary.

Please describe any community sensitisation that has taken place over the past 12 months; include topics covered and number of participants.

None

Have there been any concerns around Health, Safety and Security of your project over the past year? If yes, please outline how this was resolved.

Severe environmental conditions exist in our protected areas (rough terrain, extreme heat, etc). We are working with the Cayman Islands Regiment who have been trained for physical work in this environment. We have protocols in place to ensure that no individual works alone. We have moved to using camera traps instead of relying on surveys to limit dangerous work conditions. We are also researching using drones to monitor the boundaries of our protected areas rather than installing physical signage because the installation process is extremely taxing in this environment.

13. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2023 – 31 March 2024)

Project spend (indicative) in this financial year	2023/24 D+ Grant (£)	2024/25 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (Please specify)				
TOTAL	92,560	92,560		NB: Please note that these figures are forecasted figures and will be confirmed in the final financial report

Table 2: Project mobilised or matched funding during the reporting period (1 April 2023 – 31 March 2024)

	Secured to date	Expected by end of project	Sources
Matched funding leveraged by the partners to deliver the project (£)			
Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£)			

14. Other comments on progress not covered elsewhere

15. OPTIONAL: Outstanding achievements or progress of your project so far (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).

N/A

File Type (Image / Video / Graphic)	File Name or File Location	Caption including description, country and credit	Social media accounts and websites 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 Financial Year 2023-2024

Project summary	Progress and Achievements April 2023 - March 2024	Actions required/planned for next period
<p>Impact</p> <p>Grand Cayman's flagship Protected Areas thrive, through effective management, safeguarding key populations of endemic wildlife.</p>	<p>Through fieldwork and data analysis, the project aims to fill scientific knowledge gaps to inform priority species conservation actions and protected area site management. Progress towards this overall impact includes population monitoring, habitat assessment, and the development of management plans, with a focus on enhancing local capacity for long-term management and adaptive strategies through training and collaborative initiatives.</p>	
<p>Outcome Improved condition of Protected Areas (PAs) harboring key endemic wildlife populations through effective management plans and additional capacity to implement them.</p>		
<p>Outcome indicator 0.1: Scientific knowledge gaps filled and data used to inform conservation actions for Blue Iguanas in two key PAs, to stabilise the current decline in population numbers and monitor impact of management changes. Data collected is used to develop the National Conservation Action Plan [NCAP] and an updated Red List Assessment.</p>	<p>Data continues to be collected through camera trap surveys and citizen science programmes.</p>	<p>Collate data to update IBA/KBA designations, National Conservation Action Plans and to update the Blue Iguana IUCN Red List assessment by Q4Y3</p>
<p>Outcome indicator 0.2: Population monitoring of key endemic wildlife within the PAs, including Important Bird Areas (IBA) trigger species, Grand Cayman parrot and native reptiles, to explore programme efficacy.</p>	<p>Distance sampling using line transects and camera trap data collection are ongoing while at the same time existing data is being analysed.</p>	<p>Continue to implement and establish biodiversity monitoring programmes within the Protected Areas as part of the Protected Areas Management Plans including GPS tracking of released head-started iguanas by Q4Y3</p>
<p>Outcome indicator 0.3: Habitat suitability and important wildlife corridors understood and fed into PA management, restoration and the NTCI Natural Heritage Protection Strategy.</p>	<p>This Outcome is scheduled to be achieved during the final year of the project as it relies on the data that has been collected during Y2 and Y3 of the project</p>	<p>Collate both historical data and the data collected during this project (including GPS tracking data, bird surveys, plant surveys) to identify wildlife corridors using GIS by Q4Y3</p>

		Update management plans based on the information generated
Outcome Indicator 0.4: Protected Area Management Effectiveness is measured and evaluated, and management plans are developed for two PAs.	<p>Management plans for the Colliers and Salina Protected Areas have been drafted and are currently undergoing wider review.</p> <p>Some of the key actions identified within the plan are already being implemented, including invasive species control and biological monitoring.</p>	<p>Finalise the Protected Area Management Plans by Q1Y3</p> <p>Conduct Protected Area Management Effectiveness Evaluation (PAME) by Q4Y3</p>
Outcome Indicator 0.5: Local capacity improved to implement PA management plans and long term IAV management, monitor impacts and respond effectively.	Local technical capacity in biological and ecological monitoring has increased through training of the Assistant Field Officer, our Blue Iguana Guardians programme, and engagement with the Cayman Islands Regiment.	Identify additional training needs following the recruitment of the new project officer. Local veterinary school to carry out camera trap analysis.
Output 1 Enhance in-Territory capability to restore, monitor and manage protected areas		
Output indicator 1.1 Local capacity is increased by YR1 by recruitment of a Field Officer and an Assistant Field Officer with training and mentoring from RSPB reserves and ecology network, for duration of the grant.	The Assistant Field Officer has been in place for all of year two of the project. Unfortunately, the Field Officer position has been vacant since September 2023	<p>Recruitment for Project Officer (revised job description) is ongoing and is a priority position to fill by the end of Q1Y3.</p> <p>NTCI and RSPB will review training needs once this appointment has been made</p>
Output indicator 1.2. Training course developed for capacity building and skills development of current NTCI staff, students, and volunteers. At least 10 in-Territory staff, students or volunteers will complete the training course by the end of the project. Course to be led by Field Officer position.	<p>In September 2023, 6 NTCI participated in a plant ID course led by the National Conservation Council, and in July the Field Officer and Assistant Field Officer attended IAV training by the DoE on Little Cayman</p> <p>In June 2023 the RSPB facilitated a 3-day face to face training course in financial management with NTCI staff members, followed by a further course in March 2024.</p>	<p>In Year 3, students at the local veterinary school (SMU) will be trained in analysing camera trap images and will examine those collected in March-April 2024.</p> <p>Further training needs will be reviewed following the recruitment of a Project Officer.</p>

	In March 2024, 4 members of the Cayman Islands Regiment were trained in deployment of camera traps	
Output indicator 1.3 Detailed screening is conducted on target species (racer snakes, green iguanas, anoles, chickens) to establish data on emerging disease risk within the PAs - confirming the presence or absence of <i>Helicobacter</i> .	Publication of a scientific paper detailing the results collected during Year 1 of this project (Calle et al., 2023)	Possible sampling of non-native Carolina Anoles (<i>Anolis carolinensis</i>) in Year 3, to discover whether alternative repositories of the <i>Helicobacter</i> disease exist
Output indicator 1.4 PA patrols and monitoring are conducted by trained staff and volunteers from NTCI at twice a year both on foot and using suitable technology.	Patrols have been undertaken periodically	Trial the use of drones for monitoring
Output indicator 1.5 By end of YR1 daily climate data is being recorded from fixed plots within each PA, as a way of early warning of habitat degradation from climate change or other threats.	Weather stations were established in Year 1	Ongoing data collection
Output indicator 1.6 All PA boundaries are clearly marked and accessible for monitoring by end of Q4 YR1.	Where survey trails follow the boundary, these have been cut and marked, and are accessible for monitoring. Boundary markers have been placed where accessible around the Protected Area.	Continue marking the boundaries if accessible and wherever is necessary
Output indicator 1.7 Trail systems are established and maintained for routine monitoring and biodiversity surveys throughout both PAs by the end of Q3 YR1.	Trails have been established and continue to be maintained	Continue with trail maintenance
Output 2. Management plans for two key PAs produced and implemented with targeted conservation actions for the focal species: Grand Cayman Blue Iguana.		
Output indicator 2.1. PA management plans are developed and implemented for both Salina and Colliers reserves by the end of the project.	These plans are currently in review, and should be completed ahead of schedule	Complete and sign off
Output indicator 2.2. 2.2 Study conducted by end of Q3 YR3 to estimate Blue Iguana abundance by habitat type within and outside of the PAs using camera traps alongside current distance sampling survey methods.	Cameras were placed in the Colliers Protected Area in March 2024, and were retrieved in April, images will be examined over the coming year	In March 2025, cameras will again be deployed in Salina, as this will be the ongoing monitoring method for Blue Iguanas in these two PA's

Output indicator 2.3 Age- and sex-specific survivability and dispersal/emigration of two vulnerable age groups (hatchlings and subadults) determined. Obstacles to survival identified in each group by end of Q2 YR3.	This work has been delayed due to a lack of staff in post at the appropriate time of year for tagging. But GPS tags have been purchased and are being prepared for deployment.	Tracking will be conducted between January-March 2025 supported by DoE
Output indicator 2.4 Preferred habitat types for two vulnerable age groups, as well as wild-born versus released origins determined by end of Q2 YR3	<i>Scheduled for completion by the end of the project</i>	
Output indicator 2.5 A GIS database is developed to assess suitability and document habitat range and distribution for Blue Iguanas by Q3 YR3.	<i>Scheduled for completion by the end of the project</i>	
Output indicator 2.6 By the end of the project, all information is combined to quantify and identify land and 'good habitat' options sufficient to expand, restore or establish PAs.	<i>Scheduled for completion by the end of the project</i>	
Output indicator 2.7 Corridors identified for Blue Iguana movement continuity between PAs or on private land within the species' range by Q2 YR3.	<i>Scheduled for completion by the end of the project</i>	
Output indicator 2.8 Updated Red List Assessment completed and submitted to IUCN by the end of the project.	<i>Scheduled for completion by the end of the project</i>	
Output indicator 2.9 National Conservation Action Plan completed and approved by the end of the project.	<i>Scheduled for completion by the end of the project</i>	
Output 3. Improve PA management to support Blue Iguana and other priority wildlife conservation through effective community engagement and capacity building		
Output indicator 3.1 Continuous Invasive Alien Vertebrates (IAV) monitoring, trapping and removal is conducted by staff and trained volunteers, and results analysed annually to look at impact within PAs and inform long term efforts required at the end of the project.	A trapping schedule was developed in Year 1 and is currently being implemented with a focus on targeted trapping taking place between September- October 2023	Continue to implement the trapping programme
Output indicator 3.2 Biodiversity surveys are conducted annually for target species – in particular, IBA trigger species and the Grand Cayman parrot, native reptiles and plants within the PAs and results are analysed at the end of the project to explore PA management efficacy.	An annual bird survey covering part of Salina Reserve was carried out in March 2024, and another survey was done in August 2023. Habitat and vegetation surveys exist for camera trap locations in Salina.	Establish a structured ongoing biodiversity monitoring program (for example, permanent vegetation monitoring plots for re-survey on a 5-10 year basis).

Output indicator 3.3 By Q4 YR2 a public education and outreach campaign to support conservation of key endemic wildlife and better practises in PA management, highlighting key issues and shaping behaviour change.	Protected area outreach campaign took place in October-November 2023. Social media posting throughout the year.	NTCI to work with RSPB to adapt the outreach program for the remainder of the project
Output indicator 3.4 Updated educational signage at PAs and other NTCI sites by Q1 YR3 to increase knowledge and awareness of issues, research and solutions.	Uncertain of situation regarding signs designed earlier in the year before staff member left.	Determine status of sign designs and place educational signage in PAs and elsewhere
Output indicator 3.5 Current volunteer programme is expanded to assist with more fieldwork, data collection and IAV management. At least 10 new volunteers will have signed up by the end of each project year, resulting with at least 30 trained volunteers by the end of the project.	This goal of 10 new volunteers was exceeded in year 1 and these Blue Iguana Guardians continue to volunteer on the project	Revival of training depends on BIC staff being in place
Output indicator 3.6 - E-guana citizen science mobile application is being actively used by at least 5,000 people by the end of YR3, assisting with data collection, engagement and information sharing and informing rapid and effective response to issues such as IAV incursions.	863 downloads of app, approximately 100 active users	Revise target, while also promoting further downloads and use of the app
Output 4. Project managed and monitored effectively.		
Output indicator 4.1 Project monitoring plan developed and reviewed quarterly and an annual review conducted in line with Darwin Initiative/Plus reporting schedule.		
Output indicator 4.2 Regular communication maintained between all partners, via Zoom calls, meetings or email.	NTCI and RSPB meet on a monthly basis to review project activities and, recognising the important of face-to face meetings in this digital age, RSPB project manager Charlie Butt visited the Cayman Islands in March 2023 to conduct a thorough project evaluation with NTCI Director and staff.	Continue regular meetings, and build on sabbatical visit by Michael MacDonald in May 2024
Output indicator 4.3 Monthly reporting on progress to NTCI Director from Project Lead. Monthly reporting to the Environmental Advisory Committee and quarterly updates to the Blue Iguana Conservation Steering Committee.	When the BIC Operations Manager was in post, they reported monthly to the NTCI Director. The NTCI Director is now acting as the project lead.	Once the OM position is filled, reporting will resume.

Output indicator 4.4 High standards of accurate and punctual technical and financial reporting to Darwin Initiative.	Annual report requested a short extension (less than 2 weeks)	
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Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
Impact: Grand Cayman's flagship Protected Areas thrive, through effective management, safeguarding key populations of endemic wildlife.			
<p>Outcome: Improved condition of Protected Areas (PAs) harboring key endemic wildlife populations through effective management plans and additional capacity to implement them.</p>	<p>0.1 Scientific knowledge gaps filled and data used to inform conservation actions for Blue Iguanas in two key PAs, to stabilise the current decline in population numbers and monitor impact of management changes. Data collected is used to develop the National Conservation Action Plan [NCAP] and an updated Red List Assessment.</p> <p>0.2 Population monitoring of key endemic wildlife within the PAs, including Important Birding Area (IBA) trigger species, Grand Cayman parrot and native reptiles, to explore programme efficacy.</p> <p>0.3 Habitat suitability and important wildlife corridors understood and fed into PA management, restoration and the NTCI Natural Heritage Protection Strategy.</p>	<p>0.1 Annual reporting of collated data. A completed NCAP has been approved and an updated IUCN Red List Assessment has been submitted.</p> <p>0.2 Technical reports produced from data to help monitor efficacy and changes and outline future recommendations.</p> <p>0.3 A completed assessment report of prime habitat for Blue Iguanas and other key species within the PAs. Important wildlife corridors highlighted in NTCI database. Results used to inform PA management plans, land acquisition and species action plans.</p> <p>0.4 Management plans agreed for all sites and regularly reviewed and</p>	<p>Risk that recruitment and retention of staff and volunteers may be hampered by issues such as the recent COVID-19 crisis. We are confident that we have experience of managing and retaining current staff/volunteers and have worked effectively through the recent pandemic.</p> <p>Assumption that field work and required patrols possible despite extreme weather conditions, COVID-19 restrictions or other foreseeable issues. We believe that with highly experienced in-Territory partners we can effectively plan and manage work schedules and restrictions to ensure that all work is completed.</p>

	<p>0.4 Protected Area Management Effectiveness is measured and evaluated, and management plans are developed for two PAs.</p> <p>0.5 Local capacity improved to implement PA management plans and long term IAV management, monitor impacts and respond effectively.</p>	<p>updated. Regular monitoring, technical reports from field visits and annual biodiversity surveys including plants. Results annually reviewed and shared.</p> <p>0.5 NTCl staff and local volunteers are trained in research and IAV management techniques and required data analysis and reporting.</p>	
<p>Outputs:</p> <p>1. Enhance in-Territory capability to restore, monitor and manage protected areas</p>	<p>1.1 Local capacity is increased by YR1 by recruitment of a Field Officer and an Assistant Field Officer with training and mentoring from RSPB reserves and ecology network, for duration of the grant.</p> <p>1.2 Training course developed for capacity building and skills development of current NTCl staff, students, and volunteers. At least 10 in-Territory staff, students or volunteers will complete the training course by the end of the project. Course to be led by Field Officer position.</p>	<p>1.1 Recruitment process completed and both positions filled and contracts signed.</p> <p>1.2 Course materials are developed and skilled lecturers from within the partnership will lead on teaching and assessing course participants. All participants will be assessed and signed off on completion of training.</p>	<p>Assumption that there will be sufficient interested applicants with the required skills and knowledge to successfully recruit and that staff will remain in post throughout the 3-year contract. There will be no delays, such as problems with visas, to interrupt commencement of employment. We believe that given the experience of the local government partners and NTCl experience of recruitment and visa applications process there will be no delays.</p> <p>Assumption that there is available expertise and knowledge within the key partners, to design, implement and deliver training course for capacity building and that COVID-19 restrictions or other issues, such as hurricanes, will halt training. We are confident that the extensive experience within the partnership will enable us to ensure high quality training is delivered. Due to the availability of online platforms (e.g.,</p>

	<p>1.3 Detailed screening is conducted on target species (racer snakes, green iguanas, anoles, chickens) to establish data on emerging disease risk within the PAs - confirming the presence or absence of Helicobacter.</p> <p>1.4 PA patrols and monitoring are conducted by trained staff and volunteers from NTCI at twice a year both on foot and using suitable technology.</p> <p>1.5 By end of YR1 daily climate data is being recorded from fixed plots within each PA, as a way of early warning of habitat degradation from climate change or other threats.</p> <p>1.6 All PA boundaries are clearly marked and accessible for monitoring by end of Q4 YR1.</p>	<p>1.3 Samples shipped to WCS partners for screening. Reports created and data shared.</p> <p>1.4 Reports created. Reporting and documentation of issues will be presented at EAC meetings and with relevant partners.</p> <p>1.5 Fixed weather stations erected in each PA and data is sent via WIFI and stored monthly.</p> <p>1.6 Boundary markers are put out and regular checks are conducted.</p>	<p>Zoom) and on-island expertise, the training course will be successfully delivered without delays.</p> <p>Work is not rendered impossible due to COVID-19 restrictions or weather, e.g., hurricanes. If we believe this to be the case, we will use careful scheduling of activities and make use of technology available. We are confident that weather stations will function in the harsh environment and be able to send data electronically and we have prior experience with these systems.</p> <p>Trails and boundaries will be maintained and cleared regularly along with regular patrols conducted by trained volunteers and staff. We are confident this will happen as currently does within other PAs and we have experience with the maintenance of local trails.</p> <p>Volunteers, staff, and partners have sufficient expertise and knowledge to use technology to help with PA monitoring. We are confident of this assumption as there is a lot of existing expertise and knowledge within current staff and partners.</p>
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	<p>1.7 Trail systems are established and maintained for routine monitoring and biodiversity surveys throughout both PAs by the end of Q3 YR1.</p>	<p>1.7 Biodiversity reports prepared at designated intervals throughout the grant.</p>	
<p>2. Management plans for two key PAs produced and implemented with targeted conservation actions for the focal species: Grand Cayman Blue Iguana.</p>	<p>2.1 PA management plans are developed and implemented for both Salina and Colliers reserves by the end of the project.</p> <p>2.2 Study conducted by end of Q3 YR3 to estimate Blue Iguana abundance by habitat type within and outside of the PAs using camera traps alongside current distance sampling survey methods.</p> <p>2.3 Age- and sex-specific survivability and dispersal/emigration of two vulnerable age groups (hatchlings and subadults) determined. Obstacles to survival identified in each group by end of Q2 YR3.</p> <p>2.4 Preferred habitat types for two vulnerable age groups, as well as wild-born versus released origins determined by end of Q2 YR3.</p> <p>2.5 A GIS database is developed to assess suitability and document habitat range and distribution for Blue Iguanas by Q3 YR3.</p>	<p>2.1 Management plans developed and approved.</p> <p>2.2. Methodology, equipment and timeline is agreed and relevant plans and protocols are updated and in place.</p> <p>2.3 Data collated and formulated into reports.</p> <p>2.4 Data gathered via surveys, photographs, camera traps and drones.</p> <p>2.5 Database developed and updated regularly.</p>	<p>Staff retention and expertise allows them to achieve and implement outputs. We are confident this will hold true as we have required support and expertise in partners to ensure work is supported. Thorough screening during the interview process from experienced partnership will select suitable candidates to live/work on Cayman.</p> <p>Necessary skills and knowledge are available for field techniques and technology use to conduct field work and analysis results. We believe this will hold true as recruited staff will be support by current NTCI staff and experienced partners, with expertise with methodology and working on Cayman.</p> <p>Field work is not rendered impossible due to COVID-19 restrictions or weather, e.g., hurricanes. We believe this will be the case and will use careful scheduling of activities and make use of technology available to minimize any impact or delays.</p>

	<p>2.6 By the end of the project, all information is combined to quantify and identify land and 'good habitat' options sufficient to expand, restore or establish PAs.</p> <p>2.7 Corridors identified for Blue Iguana movement continuity between PAs or on private land within the species' range by Q2 YR3.</p> <p>2.8 Updated Red List Assessment completed and submitted to IUCN by the end of the project.</p> <p>2.9 National Conservation Action Plan completed and approved by the end of the project.</p>	<p>2.6 Report created to outline habitats within the PAs.</p> <p>2.7 Reports, maps and photographic evidence.</p> <p>2.8 IUCN update report submitted.</p> <p>2.9 National Conservation Action Plan document completed and approved.</p>	
<p>3. Improve PA management to support Blue Iguana and other priority wildlife conservation through effective community engagement and capacity building</p>	<p>3.1 Continuous Invasive Alien Vertebrates (IAV) monitoring, trapping and removal is conducted by staff and trained volunteers, and results analysed annually to look at impact within PAs and inform long term efforts required at the end of the project.</p> <p>3.2 Biodiversity surveys are conducted annually for target species – in particular, IBA trigger species and the Grand Cayman parrot, native reptiles and plants within the PAs and results are analysed at the end of the project to explore PA management efficacy.</p> <p>3.3 By Q4 YR2 a public education and outreach campaign to support conservation of key endemic wildlife and better practises in PA management, highlighting key issues and shaping behaviour change.</p>	<p>3.1 Ongoing data analysis carried out and an annual report compiled.</p> <p>3.2 Data analysis carried out and reports created.</p> <p>3.3 Education, publicity and survey materials created. Evaluate effectiveness with annual community surveys and polls.</p>	<p>IAV monitoring and controls are properly implemented and evaluated. We believe this will happen given the experience of the NTCI and partners.</p> <p>Trained volunteers continue to commit time and efforts to support IAV management and PA monitoring for the long term. We are confident this will happen as the NTCI has good history of long-term volunteers and a large number of interested and committed individuals keen to be trained.</p>

	<p>3.4 Updated educational signage at PAs and other NTCI sites by Q1 YR3 to increase knowledge and awareness of issues, research and solutions.</p> <p>3.5 Current volunteer programme is expanded to assist with more fieldwork, data collection and IAV management. At least 10 new volunteers will have signed up by the end of each project year, resulting with at least 30 trained volunteers by the end of the project.</p> <p>3.6 - E-guana citizen science mobile application is being actively used by at least 5,000 people by the end of YR3, assisting with data collection, engagement and information sharing and informing rapid and effective response to issues such as IAV incursions.</p>	<p>3.4 New signage is designed, approved and installed at relevant sites.</p> <p>3.5 New volunteers are recruited, trained and added to the volunteer database.</p> <p>3.6 Mobile app training materials will be designed and made available. Training for use of the application will be provided via videos and infographics and engagement and sign up will be monitored monthly to record usage.</p>	<p>Field work and surveys are not stopped due to weather conditions or other unforeseen issues e.g., COVID-19 restrictions. We will use effective scheduling, planning and monitoring of changes in weather and other situations to mitigate this. Flexibility in the work schedule and by using camera will help mitigate this.</p> <p>Citizen science app will be well received and have positive uptake and engagement. We believe this will be the case as we already have good level of participation through social media channels and email. We will advertise the app and provide training on its use to ensure that we meet targets outlined.</p>
<p>4. Project managed and monitored effectively.</p>	<p>4.1 Project monitoring plan developed and reviewed quarterly and an annual review conducted in line with Darwin Initiative/Plus reporting schedule.</p> <p>4.2 Regular communication maintained between all partners, via Zoom calls, meetings or email.</p> <p>4.3 Monthly reporting on progress to NTCI Director from Project Lead. Monthly reporting to the Environmental Advisory Committee and quarterly updates to the Blue Iguana Conservation Steering Committee.</p>	<p>4.1 Project plan devised, reviewed and submitted to Darwin Initiative.</p> <p>4.2 Agendas and minutes of meetings kept.</p> <p>4.3 Reports compiled and shared with relevant groups and partners.</p>	

	4.4 High standards of accurate and punctual technical and financial reporting to Darwin Initiative.	4.4 Financial and technical reports completed and submitted on time to meet grant deadlines.	
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Annex 3: Standard Indicators

Table 1 Project Standard Indicators

DPLUS Indicator number	Name of indicator	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DIE03	Status of threatened species	Red List Assessments		0	0		0	1
DID03	Policies with biodiversity provisions enacted	National Conservation Action Plans		0	0		0	1
DIA04	Volunteers reporting they are applying new capabilities \geq 6 months after training	People	Local Communities and Nationals and International Volunteers	97	0		97	30
DIC03	New assessments of habitat conservation needs	Management Plans		0	0		0	2
DIC12	Social media presence	People using E-guana app		1000 (uncertain how this number arrived at)	863 total to date		863	5000

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)
<i>Helicobacter</i> screening of Grand Cayman Blue Iguana (<i>Cyclura lewisi</i>) and North Antillean Slider	Journal article	Calle, P.P., McClave, C., Ingerman, K., Nightingale, B.R., Jamieson, J., Seimon, T.A. & Harding, L. (2023)	Male	Based in USA: presume American	American Association of Zoo Veterinarians	https://bioone.org/journals/journal-of-zoo-and-wildlife-medicine/volume-54/issue-2/2022-0122/HELICOBACTER-SCREENING-OF-GRAND-CAYMAN-BLUE-IGUANA-

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)
<i>(Trachemys decussata angusta)</i> on Grand Cayman, Cayman Islands.						CYCLURA-LEWISI-AND/10.1638/2022-0122.short

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

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the correct template (checking fund, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	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 discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	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
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 15)?	n/a
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	