

Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

Important note *To be completed with reference to the Reporting Guidance Notes for Project Leaders:
it is expected that this report will be about 10 pages in length, excluding annexes*

Submission Deadline: 30th April 2018

Darwin Plus Project Information

Project reference	DPLUS055
Project title	Saving the Iguana Islands of Turks and Caicos
Territory(ies)	Turks and Caicos Islands
Contract holder institution	Royal Society for the Protection of Birds (RSPB)
Partner institutions	San Diego Zoo Global (SDZG), Turks & Caicos National Trust (TCNT), Department for Environment and Coastal Resources (DECR), Department of Agriculture (DoA), Ambergris Cay Facilities Ltd
Grant value	£199,620
Start/end date of project	1 st April 2017 – 31 st March 2020
Reporting period (e.g., Apr 2017-Mar 2018) and number (e.g., AR 1,2)	Apr 2017-Mar 2018 AR 1
Project leader name	Sarah Havery
Project website/blog/Twitter	
Report author(s) and date	Sarah Havery, Giuliano Colosimo, Glenn Gerber, Ethlyn Gibbs-Williams, Della Higgs, Wilhelmina Kisoosingsh, B Naqqi Manco, Eric Salamanca and Karen Varnham. April 2018.

1. Project overview

Invasive alien vertebrates (IAV) are one of the greatest threats to native reptiles in the UK Overseas Territories (Dawson et al., 2014); and biosecurity controls that prevent new arrivals are the most effective way of reducing this threat and sustaining any IAV eradication efforts. The project aims to address the need for effective biosecurity plans for two offshore islands in the Turks and Caicos Islands (TCI) where there is an urgent need to protect threatened native wildlife, particularly globally important reptile populations.

TCI are a UK Overseas Territory consisting of eight main islands and about 30 smaller islands split into two groups, the Turks Islands and the Caicos Islands, separated by the Turks Island Passage. The islands are situated to the south of the Bahamas in the West Indies and geographically form the southern end of the Bahamas Lucayan archipelago.

The Critically Endangered Turks and Caicos rock iguana (*Cyclura carinata*) is found only in TCI and a small sub-population on Booby Cay in the Bahamas (IUCN, 2004). The combined area of islands supporting viable iguana populations is approximately 13 km² (IUCN, 2004). Ongoing habitat loss and spread of IAV (feral cats, dogs and rodents) are contributing to the continued population declines of this species. Two of the largest remaining populations of rock iguana are found on Little Water Cay (LWC) and Big Ambergris Cay (BAC), see Fig. 1, where iguanas are at significant risk from rat and cat predation and further rat incursion.

LWC, a 43ha island leased and managed by project partner Turks & Caicos National Trust (TCNT), is situated close to the main inhabited island of TCI, Providenciales (Fig. 2). LWC (known as Iguana Island) is the most accessible site in TCI for tourists to view the rock iguanas and is therefore a significant tourism destination. Introduced black rats *Rattus rattus* and feral cats *Felis catus* are already present on LWC and rat control has been ongoing since 2015/16 as part of the EU BEST funded project (http://ww2.rspb.org.uk/Images/Caribbean_Newsletter_tcm9-443305.pdf). Additionally, an independent, but synergistic, privately funded project began in June/July 2017 aiming to eradicate feral cats from Pine, Water and Little Water Cays, which engaged most of the project partners. Although disrupted by the impacts of Hurricanes Irma and Maria, this project eradicated all but one of the feral cats from the neighbouring Pine Cay and Water Cay. The projects will recommence in 2019 and will include feral cat and rat eradication from the three islands, which further highlights the need for sufficient biosecurity plans and training to be in place prior to this operation.

BAC, a 450ha island situated south of the main Caicos islands chain, is privately owned and is undergoing intensive development for tourism (Fig. 2). Four individual IAV have been found and removed previously on BAC, and at the start of the project the island was free of IAV. Following the impacts of Hurricanes Irma and Maria in September 2017 (see Section 2), the infrastructure development on BAC has recommenced at a rapid pace, and sadly both rats and mice have been accidentally introduced within 6 months (see Section 3.3).

These recent developments on both LWC and BAC over YR1 has increased the urgency for the establishment of effective and sustainable biosecurity and IAV control measures. This has also increased the project's importance in terms of protecting the natural heritage and improving these important tourism assets for TCI.

Figure 1: A satellite image of the Turks and Caicos indicating the locations of the two project sites, Little Water Cay and Big Ambergris Cay.

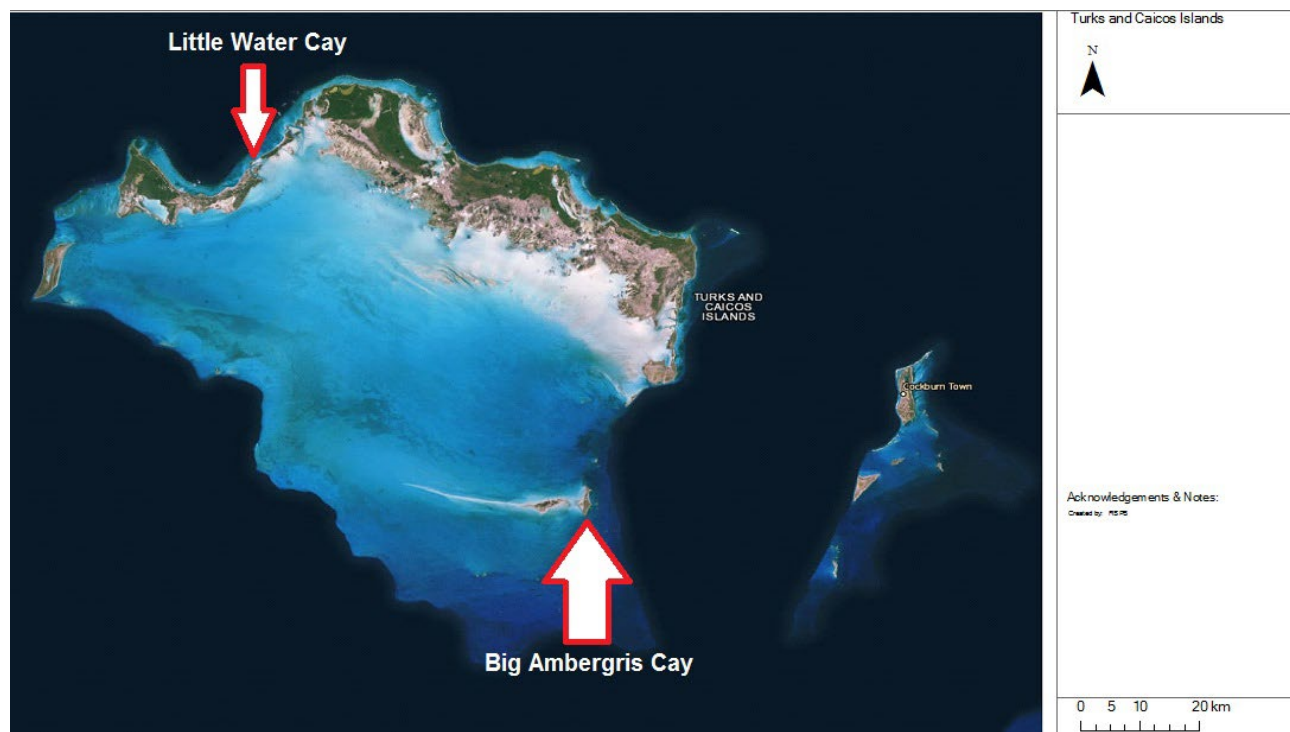
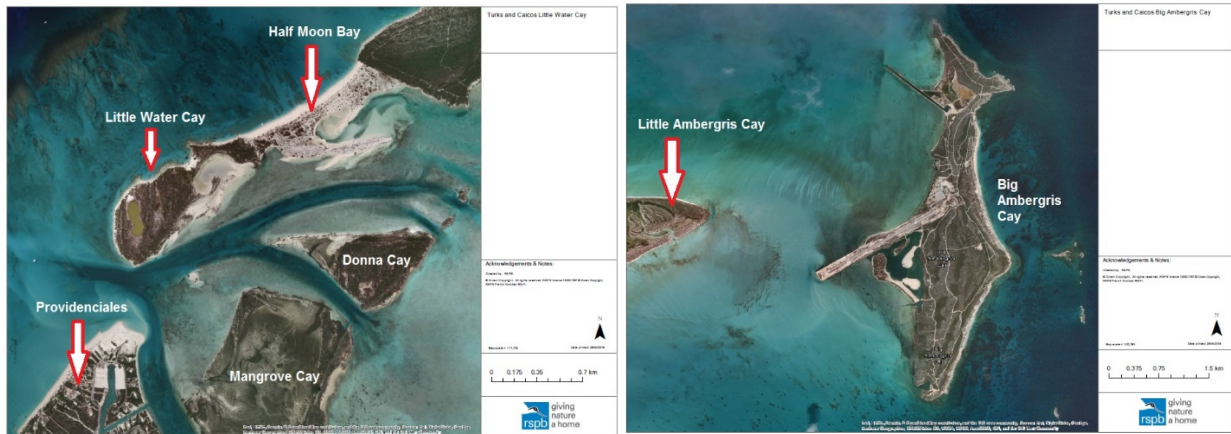


Figure 2: (LEFT) A satellite image of Little Water Cay and the surrounding cays and (RIGHT) A satellite image of Big Ambergris Cay indicating its proximity to Little Ambergris Cay.



The overall objective of the project is to secure the population of the rock iguana through the establishment of effective biosecurity plans/IAV control on LWC and BAC, and the identification of islands for future restoration. This is a cross-organisational partnership-based project with several key elements, including:

- Surveying and monitoring of key native reptiles;
- Developing a rapid survey technique for rodents and cats on offshore islands;
- Monitoring of human impacts on iguanas in high/low tourism areas;
- Developing biosecurity plans for LWC and BAC;
- Completing rapid surveys for iguanas, native boas, other reptiles, rats, and other IAV on at least 10 other offshore islands surrounding LWC and BAC to inform future conservation efforts to be outlined in the revised Turks and Caicos rock iguana management plan;
- Capacity building between all project partners and project stakeholders; and
- Overall project management and development.

2. Project stakeholders/partners

This is a cross-organisational partnership-based project aiming to build capacity and collaboration between the in-Territory partners, **Turks and Caicos National Trust (TCNT), Department of Environment and Coastal Resources (DECR), Department of Agriculture (DoA), and Ambergris Cay Facilities Ltd** and the international partners (**Royal Society for the Protection of Birds (RSPB)** and **San Diego Zoo Global (SDZG)**).

The greatest challenge for the primary stakeholders, the project partners in TCI, over the first year of the project has been the impacts of Hurricanes Irma and Maria. On September 8th Hurricane Irma (at category 5) hit the Turks and Caicos Islands causing widespread damage and devastation (165 mph winds). Two weeks later, Hurricane Maria (at category 3) hit the islands. Buildings, sites and infrastructure of the in-country project partners were damaged, with some being destroyed entirely. Due to the impacts of the hurricanes, the project activities were paused from September 2017 to January 2018. Power and internet services were restored only on 10th October 2017, and not universally across the islands, which limited communication with the TCI partners during this time. Phone and internet signal remains intermittent and cuts out regularly on Providenciales.

TCNT have moved out of their headquarters and are still using an alternative office in Grace Bay, with a significant amount of equipment and supplies now having to be kept in a storage facility. Some project equipment has been lost, both at the headquarters and from where they were stored at the docks due to infrastructure damage. TCNT's boat recently sank due to limited harbourage since the destruction of the docks, leaving TCNT staff without access to LWC. They have been asking for assistance to get to the Cay via lifts from tour companies, which quickly becomes an expensive way to operate. The wooden infrastructure on LWC, important for the tourism income for TCNT, has sustained some damage and is in need of repair. In the project change request accepted on 26th February 2018, we were able to reallocate some of the budget towards purchasing boating equipment for TCNT, including a

better engine which will not only improve access to LWC but will be safer for the staff on a daily basis. We are in the process of securing this new equipment and preparing better security of TCNT boat equipment which will be reported on in Year 2.

Big Ambergris Cay (BAC) was situated closer to the eye of Hurricane Irma, and all infrastructure on this island (needed to accommodate project field staff) had suffered extensive damage, including the complete destruction of the phone signal mast. This meant that there was limited communication with the Island Manager from September until February 2018. It was uncertain when the island would be able to host the project team for the second biannual visit, originally scheduled for biosecurity training for September 2017 and for iguana and boa work and surveying of offshore cays for November 2017; which were postponed. Fortunately, due the recovery efforts and re-initiation of development activities on the island, Ambergris Cay Facilities Ltd were able to host the rescheduled visit in March 2018. Unfortunately, however, at some point between September and February both rats and mice had been introduced to BAC, before biosecurity training and the finalisation of the biosecurity plan had taken place, see Section 3.3.

All partners bring specialist technical skills and experience, in a variety of different disciplines that complement each other and together provide a strong partnership for project delivery. All partners have been involved in project planning, monitoring and evaluation and decision-making, formally through the first biannual conference call on 22nd May (meeting minutes in **Annex 3.7**). The second biannual meeting was due in November but was cancelled due to the hurricanes.

All project partners and stakeholders in TCI, including two government ministers, attended the project launch event on 7th April 2017 (invitation and agenda in **Annexes 3.1 & 3.2**). Examples of collaboration during fieldwork include, as outlined in the April 2017 trip report **Annex 3.3**, project partners TCNT, DoA and RSPB completed rodent monitoring checks on LWC and SDZG and TCNT staff collected data on the iguanas at Half Moon Bay. Half Moon Bay is a sand bar that connects Little Water Cay and Water Cay (see Fig. 2) and is an area that receives a high number of tourists and is currently not under any management. Additional stakeholders, such as boat tour operators and volunteers, have been involved with the project activities on an opportunistic basis, with the iguana survey and monitoring and plant survey work.

Following the first trip we had received feedback from the project partners that it would be useful to receive the draft trip schedule with plenty of notice to allow for work programme planning to fully utilise the expertise of the partners and to allow for more skill-sharing between partners (meeting minutes in **Annex 3.7**). This feedback was noted, and for the second field trip in March 2018, a draft schedule was produced by SDZG and circulated by RSPB in November 2017.

As outlined in the March 2018 trip report, **Annex 3.9**, two biosecurity training courses took place in the second biannual trip led by RSPB. These involved a presentation session, **Annex 3.10**, and field activities. The first day-long course was held on LWC, attended by TCNT, DoA and DECR. The second course was held on BAC, attended by Ambergris Cay Facilities Ltd and SDZG and included training in incursion response due to the recent arrival of rats and mice on BAC.

3. Project Progress

3.1 Progress in carrying out project Activities

The activities which have not commenced to date, as per the project timeline (**Annex 3.14**), have not been reported on below.

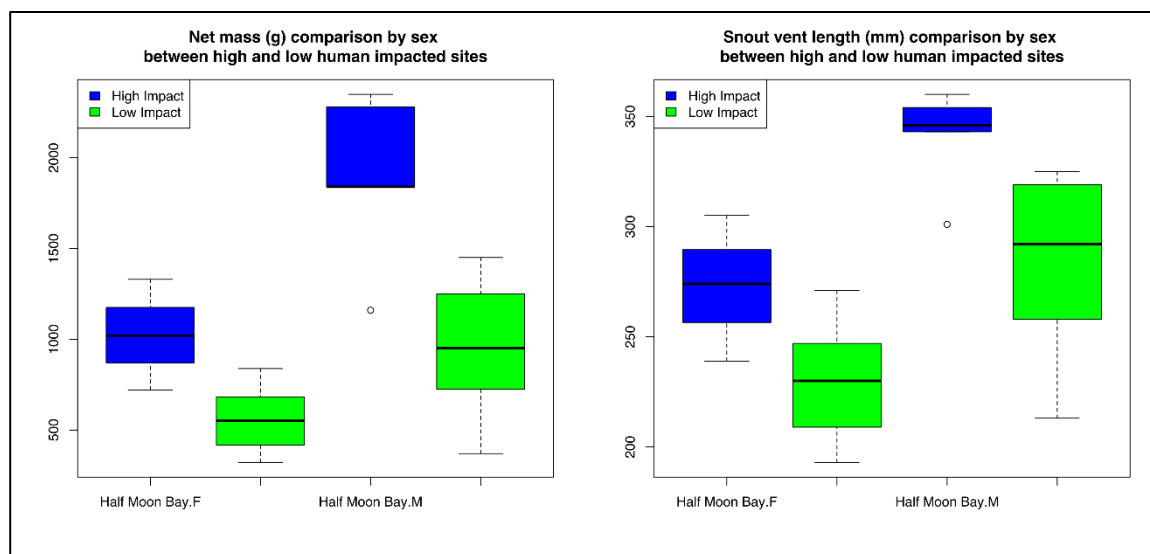
Output 1: Baseline and trend data for iguanas and boas, humans and predators

Activity 1.1: Detailed surveys of iguanas on Little Water Cay: including setting up transects with camera traps

Fieldwork under this Activity led by SDZG focused on three primary activities: (1) continuing and expanding on-going iguana and boa mark-recapture studies, (2) comparing iguanas at

sites with different levels of human impact to assess the effect this has on iguana size, physiology, and behaviour, and (3) conducting transects to measure iguana abundance and age structure across the islands; evidence in April 2017 technical report **Annex 3.4** and March 2018 trip report **Annex 3.9**. No boas are present on LWC. On LWC the site with low human impact was the area around the southern boardwalk, and the high impact site was Half-Moon Bay (Fig. 2), where unregulated tourism results in high human interaction with iguanas, including supplemental feeding. Adult male and female iguanas were captured at low and high impact sites to gather data on body size and mass, and iguanas at Half Moon Bay were found to be much larger than those at the low impact sites on those islands (Fig 3). The mark-recapture data will be used to track individual and population parameters over time such as growth rate, age at reproductive maturity, longevity, population density, sex ratio, and age structure (number of juveniles versus adults) which will be reported on in YR2. Baseline data of relative abundance of iguanas on LWC was collected through walking transects repeated four times in April 2017 and three times in March 2018. In April 2017, an average of 97 iguanas were observed. These transects will be repeated throughout the project to provide an estimate of relative abundance over time.

Figure 3: Comparison of morphological features (net mass in grams on the left and snout vent length in mm on the right) for adult males (M) and females (F) sampled in two distinct locations on Little Water Cay. In blue is Half Moon Bay (number of adult F = 3, number of adult M = 5). In green is the South Boardwalk (number of adult F = 23, number of adult M = 17).



Activity 1.2: Monitoring of cats deployed on Little Water Cay, using a variety of detection methods (including motion cameras), to establish presence/absence on Little Water Cay

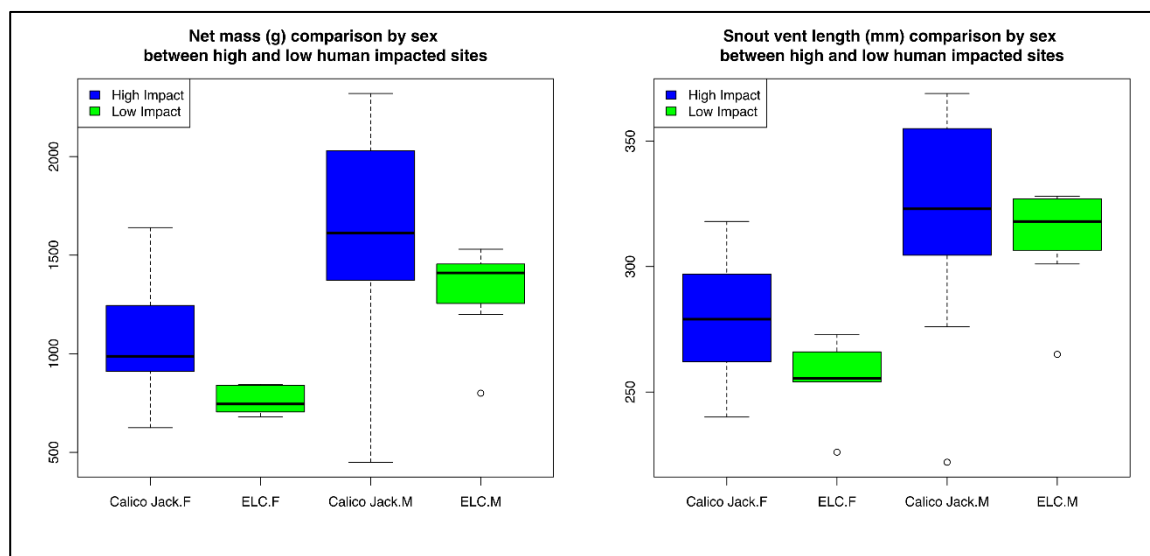
Camera trap trials were completed on Little Water Cay which found baiting with sardines during the day ineffective, due to the high abundance of iguanas, evidence in **Annex 3.6**. More strategic monitoring will be deployed in YR2. Additionally, an independent, but synergistic, privately funded project began in 2017 aiming to eradicate feral cats from Pine, Water and Little Water Cays. Although disrupted by the impacts of Hurricanes Irma and Maria, this project eradicated all but a few of the feral cats from the neighbouring Pine Cay and Water Cay. Camera trapping to establish presence/absence in YR2 will help to inform the eradication project when it recommences in 2019.

Activity 1.4: annual survey of native iguanas and boas on Big Ambergris Cay: iguanas, boas, including setting up transects with monitoring cameras

Fieldwork under this Activity led by SDZG focused on four primary activities: (1) continuing and expanding on-going mark-recapture studies of iguanas, (2) continuing and expanding on-going mark-recapture studies of boas, (3) comparing iguanas at sites with different levels of human impact to assess the effect this has on iguana size, physiology, and behaviour, and (4) conducting transects to measure iguana abundance and age structure across the islands; evidence provided in in April 2017 technical report **Annex 3.4** and March 2018 trip report

Annex 3.9. On BAC the site with low human impact was the Environmental Learning Centre (ELC) peninsula, where iguanas have little to no direct interaction with humans and the habitat is almost completely natural. The high impact site on BAC was Calico Jack's (CJS), a club for island guests with outdoor pool, bar, and dining facilities, where iguanas have much greater interaction with people, including food supplementation, and the immediate habitat is highly modified with considerable landscaping, a variety of imported plants, and irrigation. Adult male and female iguanas were captured at low and high impact sites to gather data on body size and mass, and iguanas at CJS were found to be much larger than those at the low impact sites on those islands (Fig 4). The mark-recapture data will be used to track individual and population parameters over time such as growth rate, age at reproductive maturity, longevity, population density, sex ratio, and age structure (number of juveniles versus adults) which will be reported on in YR2. Physiological data was also collected from a total of 31 adult iguanas in April 2017 through collecting blood samples, evidence provided in April 2017 technical report **Annex 3.4**. The samples collected during the March 2018 trip are still being analysed and will be reported on in YR2. Baseline data of relative abundance of iguanas on BAC was collected through driving transects repeated four times in April 2017 and repeated in March 2018. In April 2017, an average of 256 iguanas were observed. These transects will be repeated throughout the project to provide an estimate of relative abundance over time.

Figure 4: Comparison of morphological features (net mass in grams on the left and snout vent length in mm on the right) for adult males (M) and females (F) sampled in two distinct locations on Big Ambergris Cay. In blue is Calico Jack's (number of adult F = 14, number of adult M = 16). In green is the Environmental Learning Centre (ELC, number of adult F = 6, number of adult M = 7).



Output 2: Development of biosecurity plans

Activity 2.3: Develop a biosecurity plan for Big Ambergris Cay – a model for private islands subject to development pressure

In August 2017 the first version of the biosecurity plan for BAC was drafted and circulated for comment/consultation, the current version of the plan is **Annex 3.5**. Due to Hurricanes Irma and Maria the planned biosecurity training and finalising the biosecurity plan was postponed from September until March, see Section 2. In late January/ early February 2018 signs of rodents were reported on the island by the Island Manager. This shifted our focus for the March 2018 trip from setting up good biosecurity on the island to dealing with the current rodent incursion, evidence in the technical report **Annex 3.12**. During the trip it became apparent that both mice and rats were present on the island and that rats at least were present in more than one location, see Section 3.3. Eight project partner staff attended a biosecurity training course, evidence provided in the March 2018 trip report **Annex 3.9**, the biosecurity presentation slides **Annex 3.10** and the feedback forms received from attendees **Annex 3.11**.

Activity 2.4: Consultation on plan, adaptation, modification, write up and sign off by DECR and Big Ambergris Cay management

See Activity 2.3. Delayed due to Hurricanes Irma and Maria, and due to invasion of rats and mice on BAC.

Output 3: Rapid survey of offshore cays

Activity 3.1: Devise and deploy rapid survey methodology for rodents and iguanas for application across at least 10 cays where target sites are located (Donna, Mangrove, Lizard, Bird, Fort George, Grouper, Dellis, Water, Pine, Bush, Little Ambergris, Fish, Six Hills, Long, and Middleton)

A trial of the monitoring methods for rats and cats was completed on LWC in April 2017 and a protocol was produced for the rapid survey methodology, evidence in technical report **Annex 3.6**. In March 2018, 11 offshore cay surveys were completed for rodents, cats and iguanas, five around LWC (Donna, Mangrove, Fort George, Lizard, Bird) and six around BAC (Bush, Little Ambergris, Six Hills, Fish, Middleton and Long), evidence in March 2018 trip report **Annex 3.9**. Night surveys for boas were completed on Little Ambergris and Long Cay. Results to be fully analysed and written up in YR2.

Output 4: Training and capacity building

Activity 4.1: Experts in each area within the project team train others to undertake the tasks needed for successful implementation of biosecurity plans. Training to include: Monitoring (native wildlife and predators); ongoing surveillance; minimising the risk of introducing rodents through the transport of goods and people; and implementing incursion plans should rodents or other invasive alien vertebrates be detected on Big Ambergris Cay

See Section 2. Over YR1 project team members have been involved in project activities aiming to improve cross-organisational collaborative working and to share skills and experiences, evidence in the trip reports, **Annexes 3.3 & 3.9**. Biosecurity training from experts was delivered to 10 project partner staff on LWC and 8 project partner staff on BAC, evidence in the March 2018 trip report **Annex 3.9**, the biosecurity presentation slides **Annex 3.10** and the feedback forms received from attendees **Annex 3.11**. In March 2018 DECR led plant surveys on LWC in collaboration with TCNT and RSPB, evidence in the trip report **Annex 3.9** and the Vegetation Assessment Report **Annex 3.13**, enhancing knowledge of the flora of this site, see Section 7. In YR2 there will be more of a focus on training and capacity building in terms of implementing biosecurity plans. The extent of the incursion of rats and mice on BAC needs to be determined and further training for incursion response with BAC staff is urgent, see Section 3.3.

Activity 4.2: Questionnaires for team members and line managers /collation of ad hoc performance feedback/ no. of new initiatives started

Feedback was collected from the biosecurity training course held on LWC, feedback forms received in **Annex 3.11**. Feedback from project partners via email and biannual meetings regarding trip planning has been incorporated into ways of working within project partnership, see Section 2. Feedback will be continually sought throughout project with questionnaires for specific events.

Output 5: Project management/ Monitoring

Activity 5.1: At project start-up develop and agree project monitoring plan and use it as a project management tool to monitor implementation progress

The monitoring plan was not completed at project start-up due to the project-partnership focusing on delivering the first trip and the project launch. It has been delayed since over YR1 due to the project being paused because of the hurricanes and then the change in project leader in November 2017. However, the project monitoring plan will be completed during first quarter of YR2.

Activity 5.2: Bi-annual skype or conference call for core project team to plan forthcoming work schedule ensuring boats and personnel availability coincide

The first bi-annual conference call was completed in May 2017, meeting minutes provided in **Annex 3.7**. Second bi-annual conference call cancelled due to hurricane impacts, see Section 2.

Activity 5.3: Bi-annual internal (project team) technical and financial reporting to RSPB

The first bi-annual reporting for in-Territory partners was postponed due to hurricane impacts, see Section 2. Project technical reporting from project partners for YR1 have been received by RSPB, evidence in **Annexes 3.4, 3.12 & 3.13**. However, some were not received until significantly after the deadline set within the contract and some financial reporting from project partners is still outstanding. In YR2 we will work to tighten the partnership in terms of reporting to schedule.

Activity 5.4: 3x annual meeting of project team and management in TCI (Providenciales) just prior to the spring fieldwork session (March/April each year) for planning and sharing of data between all project partners from subsequent years.

The Project launch was completed in April 2017, evidence provided as the invitation **Annex 3.1** and the agenda **Annex 3.2**. An annual meeting was not planned prior to the March 2018 trip due to the impacts of Hurricanes Irma and Maria (see Section 2). A meeting will be planned at the start of the next field trip in YR2.

3.2 Progress towards project Outputs

The indicators not reported on below have not commenced as per the project timeline of activities. See **Annex 1** and the project timeline **Annex 3.14** for details.

Output 1: Baseline and trend data for iguanas and boas, humans and predators

Two sets of four transects completed on both LWC and BAC providing baseline relative abundance of iguanas and will be repeated over YR2 & YR3. Comparative sites of low and high human activity established on LWC and BAC and two Capture-Mark-Recapture surveys completed. See Section 3.1, Output 1. The project has made progress against indicators 1.1 and 1.2, see **Annex 1**.

Output 2: Development of biosecurity plans

A biosecurity plan has been drafted for BAC, current draft is **Annex 3.5**. The incursion response has been initiated in response to rat and mouse invasion on BAC, technical report in **Annex 3.12**. See Section 3.1, Output 2. The project has made progress against indicators 2.2 and 2.3, see **Annex 1**, however the rodent incursion protocol was not in place prior to the invasion of rats and mice on BAC but incursion response was initiated during the last field trip. This indicator is still valid as it is important to get these protocols in place to prevent future IAV incursions.

Output 3: Rapid survey of offshore cays

A trial of IAV monitoring methods was completed on LWC in April 2017 and a protocol produced, technical report in **Annex 3.6**. A total of 11 offshore cay surveys were completed (exceeding our target of 10 cays) in March 2018 for rodents, cats and iguanas, five around LWC and six around BAC. Night surveys for boas were completed on Little Ambergris and Long Cay. Evidence in the trip report, **Annex 9**. See Section 3.1, Output 3. The project has made progress against indicators 3.1 and 3.2 which will provide the details needed for indicator 3.3, see **Annex 1**.

Output 4: Training and capacity building

Project team members involved in all project activities improving cross-organisational collaborative working, evidence in trip reports **Annexes 3.3 & 3.9**. See Section 3.1, Output 4. The project has made progress against indicators 4.1 and 4.2, see **Annex 1**.

Output 5: Project management/ Monitoring

Project leader is in regular contact with project partners via email. First bi-annual call completed in May 2017, meeting minutes in **Annex 3.7**. Second bi-annual conference call cancelled due to hurricane impacts, see Section 2. Face-to face meetings completed with all project partners in April 2017 by previous project leader, Elizabeth Radford, and in March 2018 by current project leader. See Section 3.1, Output 5. The project has made progress against indicators 5.2, 5.3 and 5.4., see **Annex 1**. Indicator 5.1 of developing a Project Monitoring Plan has not been completed but will be completed during first quarter of YR2. Although progress has been made against indicator 5.4, YR2 will aim for the whole project partnership to be reporting on schedule.

3.3 Progress towards the project Outcome

Outcome: *The critically endangered Turks and Caicos Iguana is secured through the establishment of effective biosecurity plans/invasive vertebrate control on two offshore islands, and the identification of islands for future restoration.*

Outcome indicators:

1. *Number of iguanas is stable and/or increasing on two target cays from the baseline measured in the first year:* Baselines of relative abundance of iguanas on LWC and BAC has been collected in YR1, evidence in technical report **Annexes 3.4** and March 2018 trip report **Annex 3.9** which can be used for comparison of future data collected during YR2 and YR3 to monitor progress against this indicator over the rest of the project. Over YR1 there has been a change in ownership of BAC, and the development activities have recommenced at a significant pace following the hurricanes, with over 50 construction workers based on island. The impact of increased habitat loss and increase road mortality is likely to impact the population status of iguanas on BAC over the project. Under Output 1 the project is monitoring the road mortality. Additional communication and planning with project partners and stakeholders for BAC is urgent to identify means to reduce the impacts of habitat loss and road mortality. Currently it is unknown how this will impact the projects' ability to achieve this indicator.
2. *Big Ambergris Cay remains predator free:* Sadly, BAC is no longer predator free due to the invasion of rats and mice within the 6 months following the hurricanes (i.e. sometime between September and February). Although the source of the rats and mice is unknown, this is likely because of the need to import construction supplies and building materials to firstly repair buildings following the impact of Hurricane Irma and to secondly recommence the development of the island. This knowledge shifted the project team's focus of the March 2018 trip from finalising the biosecurity plan to initiating and training project partner staff in how to complete an incursion response. A technical report is provided in **Annex 3.12**. Initially it was thought the incursion may have just been mice, but since the March trip it is now known that rats and mice are present, and rats are at least present in more than one location. It is possible, even likely, that the current rodent invasion on the island can only be cleared up with a full-scale island-wide eradication project. However, with prompt action it may still be possible to contain the existing populations. We currently do not have the capacity or funding within DPLUS055 to complete the intensive monitoring work required, and we are working to identify additional funding for this urgent response; this is the greatest challenge for the project in terms of delivering the project Outcome. Additional means of co-funding will be sought in the first quarter of YR2 along with urgent communication and planning with project partners. Currently it is unknown how this will impact the projects' ability to achieve this indicator. We need to understand what the extent on the invasion is before we can determine if this indicator is no longer valid and needs to be adapted.
3. *Management plans IAV component strengthened with clear methodologies for ground staff and timetable for IAV control activities:* Biosecurity training completed and staff time on BAC dedicated to responding to the rat and mouse invasion during YR1. Still needs to be mainstreamed into staff work programmes and site management plans. This is an important indicator that will be vital in ensuring the sustainability of the project.

4. *Biosecurity plans agreed by TCNT Council, BAC management, tourist operators and developers and approved by TCI Cabinet:* The BAC biosecurity plan has been drafted in YR1, current version is **Annex 3.5**. This needs to be updated and finalised considering the rat and mouse invasion as discussed under indicator 2. Engaging all stakeholders involved with BAC and getting the biosecurity plan fully endorsed and incorporated into the management of the island are the next steps for achieving this indicator and ultimately the Outcome.
5. *Strategy for priority island restoration/protection published with actions agreed by the project team:* There has been significant progress towards identifying offshore cays suitable for restoration/protection, with 11 offshore cays surveyed in YR1 for rodents, cats and reptiles, as outlined in the March 2018 trip report **Annex 3.9**. The results of these surveys will be used to inform this strategy with endorsement from the IUCN iguana specialist group. It is likely that this indicator will be fully delivered by the end of the project.

Overall, despite the delays in the project due to Hurricanes Irma and Maria and the invasion of rats and mice to BAC, the project is currently on track to achieve the Outcome by the end of the project and the indicators above remain adequate for measuring the achievement of the project. The greatest challenges in achieving the project Outcome are: (1) finding an effective approach to managing the invasion of rats and mice on BAC; and (2) ensuring that all stakeholders involved with LWC and BAC remain committed and have the capacity to effectively implement the biosecurity plans and integrate into existing management plans.

3.4 Monitoring of assumptions

All the key assumptions are outlined in the log frame, **Annex 2**. Of these, over YR1 there are two assumptions that have not held true, details of future mitigation below.

1. *Fieldwork is not rendered impossible again through further hurricanes or other natural phenomena:* In YR1 the second bi-annual trip, originally planned for September and November 2017, was cancelled due to Hurricanes Irma and Maria, see Section 2. This led to project activities being paused from September 2017 to January 2018. For the second of the biannual trips for YR2 we will plan for the trip to occur in July/August to minimise the risk of cancellation due to hurricanes. An additional unforeseen impact was the loss of the TCNT boat and dock providing access to LWC. Under DPLUS055, funding has been allocated to purchasing new boating equipment for TCNT which is currently being secured.
2. *Staff retention and progression allows them to implement and share skills:* Since the hurricanes and the associated socio-economic disruption which followed, there have been TNCT staff changes in both management and wardens on LWC, resulting in limited retention of the experience/skills developed in TCNT over YR1. In the March 2018 trip staffing was discussed during meetings, and RSPB and TCNT will work to identify means to mitigate this risk for the rest of the project.

One risk not considered in the log frame was that invasive predators would invade BAC before the biosecurity plan and incursion response protocols had been finalised, endorsed and implemented. As outlined in Section 3.3, this is the greatest challenge for the project, as currently there is not enough capacity or funding within DPLUS055 to cover the required actions. Additional means of co-funding will be sought in the first quarter of YR2 along with urgent communication and planning with project partners. We need to understand what the extent on the invasion is before we can determine what the next steps are in mitigating this risk.

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

The project is addressing the following TCI government priorities:

- Revised National Parks Ordinance (2016); management of protected areas;
- The National Tourism Policy and Strategic Implementation Plan (2015); enhancing ecotourism; and
- The Environment Charter (2001, principle 7); control invasive species.

All team members, but particularly the more inexperienced members, are benefiting from the cross-team training and development, increasing the number of personnel in TCI who can carry out techniques required for implementing high quality biosecurity (monitoring, surveillance, analysis, adaptive management and action), and how to integrate this into day-to-day management of sites and work programmes of staff. This is an important outcome for all the partners involved.

This project is the first time such a cross government department/private-public partnership for IAV management has been attempted in TCI. If successful this will set a precedent for future collaboration of this nature as it potentially allows more cost-effective use of government resources to achieve national conservation goals, which benefit the environment and tourism.

4. Monitoring and evaluation

The Activities and Indicators for Output 5 (Project management/monitoring) cover the methods for monitoring and evaluation, see Section 3 for project progress. The monitoring plan was not completed at project start-up due to the project-partnership focusing on delivering the first trip and the project launch. It has been delayed since over YR1 due to the project being paused because of the hurricanes and then the change in project leader in November 2017. The focus over this period was assessing the impacts of the hurricanes on the project partners and project delivery, and to get the project back on track in terms of delivering the key activities for YR1. Currently M&E is the role of one partner, RSPB, which is continually monitoring progress through referring to the log frame and project timetable **Annex 3.14**, sharing the information with the partners via email and skype calls. The project monitoring plan will be completed during first quarter of YR2 and will include clear roles for project partners and means of disseminating information amongst partners/stakeholders.

5. Lessons learnt

See Sections 2 and 3.4 regarding feedback from project partners and mitigating for hurricane impacts.

The trip planning has gone very well over YR1, due to SDZG's experience and expertise in TCI.

Boat transport has been a challenge for SDZG and TCNT over YR1. For SDZG, there have been unforeseen delays due to freight delays and battery failure. For TCNT the limited harbourage has led to the boat sinking several times, and the engine was stolen, meaning that boat tour operators had to be used for access to LWC when SDZG's vessel was not available. Allowing for more budget for boat equipment maintenance and repairs; funding for boat security, and more time in the field trips to get these equipment issues resolved; is an important future consideration.

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

First annual report. Not applicable.

7. Other comments on progress not covered elsewhere

A vegetation assessment of LWC, completed by DECR in collaboration with TCNT, has been facilitated as part of DPLUS055, which is in addition to the activities outlined in the log frame. See the March 2018 trip report **Annex 3.9** and the Vegetation Assessment Report **Annex 3.13** for more details.

Following the accepted change request in February 2018, DoA's involvement with the project has changed from leading cat control to leading public awareness of biosecurity on Providenciales, due to start in YR2. As a result, the DoA staff involved in the project have changed, with the names of the new team members still to be confirmed.

8. Sustainability and legacy

The TCI project partners are committed to implementing the biosecurity measures and invasive alien vertebrate controls after the project is completed, including ongoing surveillance and monitoring which will be integrated into existing management and research activities. This is possible because i) hardware to enable this will be purchased during the course of the project (bait renewal will be the only additional expense), ii) team members in TCI and within the research teams will be trained in essential techniques during the project, iii) new developments on Big Ambergris Cay will have specific biosecurity plans to follow as they progress on the island and iv) tourist operators on Little Water Cay will have readily available information and advice to share with their clients on the importance of biosecurity measures.

The equipment purchased will be used by project partners beyond the scope of the project, notably the boating materials for TCNT to enable staff to get safely to and from LWC.

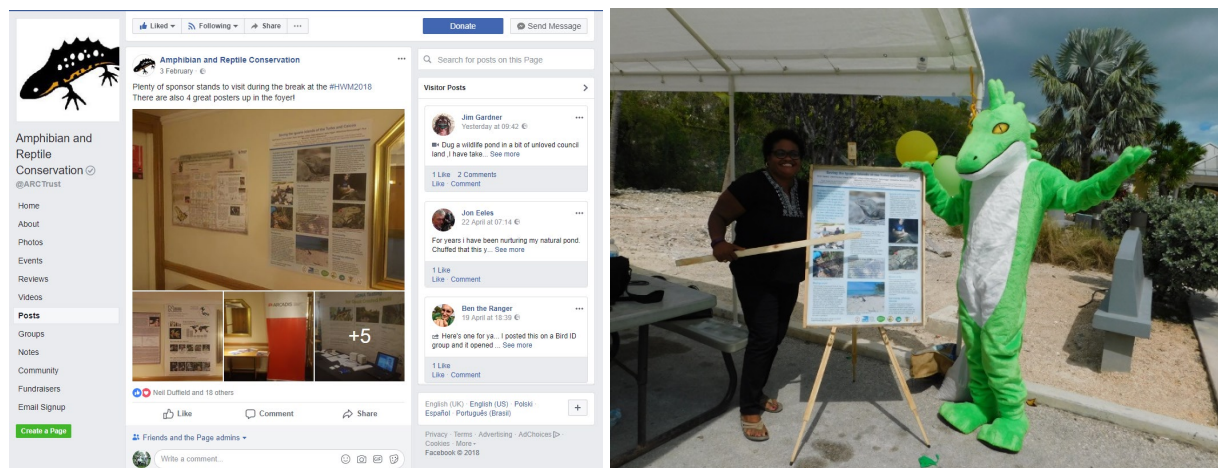
As this is the first year of the project, and due to the delays as a result of the hurricanes, the most effective means to ensure a sustained legacy of the project outcomes have not yet been planned, but will be discussed at the next annual meeting of the project partners (June 2018).

9. Darwin identity

A poster summarising the aims of the project was produced (**Annex 3.8**) and was on display at the Herpetological Workers Meeting in Northampton in February 2018. Amphibian and Reptile Conservation (ARC) posted photos of the posters on social media, Facebook and Twitter, Fig. 5. Copies of the poster were printed by RSPB and provided several copies to each project partner to communicate the project further in TCI, Fig. 5.

A press release on Turks and Caicos was at the project launch which was aired on local TV in April 2017. There were several Twitter posts about the project recognising the Darwin Initiative during the project launch. A local TCI media team came to Little Water Cay in March 2018 to interview the team members and to film some of the project activities and mentioning the Darwin Initiative. This was aired on local TV.

Figure 5: LEFT: Facebook post from Amphibian and Reptile Conservation showing DPLUS055 poster displayed during the Herpetological Workers Meeting 2018; RIGHT: Della Higgs (TCNT) using the DPLUS055 poster as part of a public awareness campaign



10. Project Expenditure

We have not yet received all financial information from project partners, so a complete detail of expenditure will follow in the expense claim for the fourth quarter of the project.

Table 1: Project expenditure during the reporting period (1 April 2017 – 31 March 2018)

Project spend (indicative) in this financial year	2017/18 D+ Grant (£)	2017/18 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				TBC
Consultancy costs				TBC
Overhead Costs				TBC
Travel and subsistence				TBC
Operating Costs				TBC
Capital items				TBC
Others (Please specify)				TBC
TOTAL				TBC

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
<p>Impact</p> <p>Improved implementation of Invasive Alien Vertebrate management in TCI and increased capacity to sustain the improvement, resulting in better protection of TCI's natural assets that support the tourist industry.</p>		<p>YR1: Building a strong cross government department/private-public partnership for IAV management.</p>	
<p>Outcome The critically endangered Turks and Caicos Iguana is secured through the establishment of effective biosecurity plans/invasive vertebrate control on two offshore islands, and the identification of islands for future restoration.</p>	<p>Number of iguanas is stable and/or increasing on two target cays from the baseline measured in the first year</p> <p>Big Ambergris Cay remains predator free</p> <p>Management plans IAV component strengthened with clear methodologies for ground staff and timetable for IAV control activities</p> <p>Biosecurity plans agreed by TCNT Council, BAC management, tourist operators and developers and approved by TCI Cabinet</p> <p>Strategy for priority island restoration/protection published with actions agreed by the project team.</p>	<p>See Section 3.3.</p> <p>YR1: Baseline data of iguana numbers collected on both LWC and BAC, evidence in Annex 3.4</p> <p>Due to the impacts of hurricanes and increased development, BAC now has rats and mice present, evidence in Annex 3.12.</p> <p>Biosecurity Plan for BAC has been drafted, evidence in Annex 3.5</p> <p>11 offshore cays surveyed for rodents/cats/reptiles, results to be used in management strategy, evidence in Annex 3.9</p>	<p><u>Key actions for YR 2 2018/19:</u></p> <p>Need to determine the extent of the rat and mouse invasion of BAC to determine next steps.</p> <p>Full engagement of all BAC stakeholders to endorse biosecurity plan.</p> <p>BAC biosecurity plan fully completed and signed off with actions being undertaken.</p> <p>LWC biosecurity plan drafted by August 2018 and engagement/endorsement from all stakeholders.</p>
<p>1. Output 1. Baseline data established and short-term trends identified for Little Water Cay and Big Ambergris Cay for iguanas, boas, humans and predators</p>	<p>1.1 Transect lines, capture-mark-recapture sites and camera networks in place on both islands and data collected for 3 consecutive years on selected reptile and predator species</p>	<p>See Section 3.2.</p> <p>1.1 YR1: Two sets of four transects completed on both LWC and BAC providing baseline relative abundance of iguanas, evidence provided in Annex 3.4</p> <p>1.2 YR1: Comparative sites of low and high human activity established on LWC and BAC and two Capture-Mark-Recapture surveys completed, evidence in Annexes 3.4 & 3.9</p>	

	<p>1.2 Effects of humans on iguanas is documented</p> <p>1.3 Recommendations for managing tourists accessing Little Water Cay from neighbouring unmanaged access points made to DECR</p> <p>1.4 Recommendations on conserving reptiles made to Ambergris Cay Facilities Ltd.</p>	<p>1.3 <i>Not started</i></p> <p>1.4 <i>Not started</i></p>
Activity 1.1 Detailed surveys of iguanas on Little Water Cay: including setting up transects with camera traps		YR1: Two sets of four walking transects on LWC have been completed giving a baseline estimate of relative abundance of iguanas, evidence in Annex 3.4 . Will be repeated over YR2.
Activity 1.2 Monitoring of cats deployed on Little Water Cay, using a variety of detection methods (including motion cameras), establish presence/absence on Little Water Cay		YR1: Camera trap trials have been completed which found baiting during the day ineffective, evidence in Annex 3.6 . More strategic monitoring will be deployed in YR2.
Activity 1.3 Impact assessment of human activity on iguanas		<i>Not started - as per project timeline, Annex 14</i>
Activity 1.4 annual survey of native iguanas and boas on Big Ambergris Cay: iguanas, boas, including setting up transects with monitoring cameras		YR1: Two sets of four driving transects on BAC have been completed giving a baseline estimate of relative abundance of iguanas, evidence in Annex 3.4 . Will be repeated over YR2.
Activity 1.5 Management recommendations on tourist management and reptile conservation for LWC and BAC written and management plans updated		<i>Not started - as per project timeline, Annex 14</i>
Activity 1.6 Research paper on human-iguana interactions		<i>Not started - as per project timeline</i>
Output 2. Biosecurity/ IAV plans developed, approved and implemented for Little Water Cay and Big Ambergris Cay	<p>2.1 Cat presence/absence quantified by the end of the second year of fieldwork</p> <p>2.2 Additional control and monitoring activities recommended in the biosecurity plans are undertaken by local staff on Little Water Cay</p>	<p>See Section 3.2.</p> <p>2.1 <i>Not started</i></p> <p>2.2 YR1: 10 project partner staff attended biosecurity training on LWC on 10th March 2018, evidence in Annexes 3.9, 3.10, 3.11</p> <p>2.3 YR 1: Biosecurity plan drafted, evidence in Annex 3.5. Incurion response initiated in response to rat and mouse invasion, evidence in Annex 3.12</p> <p>2.4 <i>Not started</i></p>

	<p>2.3 Rodent incursion protocol in place as part of biosecurity plans on Big Ambergris Cay</p> <p>2.4 Rodent incursion protocol and biosecurity signage in place, and knowledge of importance of biosecurity increased amongst key stakeholder groups specifically tour operators on Little Water Cay</p> <p>2.5 Island biosecurity plans signed off by DECR and TCNT Council.</p> <p>2.6 Biosecurity policy drafted by DECR with input from the project team</p> <p>2.7 Community meetings held on Provo to discuss the importance of biosecurity for protecting wildlife on LWC and adjacent islands</p>	<p>2.5 <i>Not started</i></p> <p>2.6 <i>Not started</i></p> <p>2.7 <i>Not started</i></p>
<p>Activity 2.1. Develop a biosecurity plan for Little Water Cay - a model for a publicly accessible island</p>	<p><i>Not started - as per project timeline, Annex 3.14. Will be drafted in YR2.</i></p>	
<p>Activity 2.2 Consultation on plan across the DECR and DoA with Ambergris Cay, planning and developers: modification as necessary and write up</p>	<p><i>Not started - as per project timeline, Annex 3.14</i></p>	
<p>Activity 2.3 Develop a biosecurity plan for Big Ambergris Cay – a model for private islands subject to development pressure</p>	<p>YR1: BAC biosecurity plan drafted, evidence in Annex 3.5. Meetings held with BAC Island Manager to discuss the rat and mouse invasion and a response has been initiated, evidence in Annex 3.12. Significant progress of implementing biosecurity in YR2 required for BAC to become a model for private islands subject to development pressure.</p>	
<p>Activity 2.4 Consultation on plan, adaptation, modification, write up and sign off by DECR and Big Ambergris Cay management</p>	<p>YR1: Eight project partner staff attended biosecurity training on BAC, evidence in Annexes 3.9 & 3.10 BAC stakeholder engagement and endorsement needed in YR2 and plan approval.</p>	
<p>Activity 2.5 Write cabinet paper for the approval of the biosecurity plans and a draft biosecurity policy with the aim of approval/sign off by TCI Government</p>	<p><i>Not started - as per project timeline, Annex 3.14</i></p>	

Activity 2.6 Presentation of the biosecurity plans to Planning Department, tourist operators, boat captains, developers and home owners	<i>Not started - as per project timeline, Annex 3.14</i>
Activity 2.7 Signage developed and installed for landing areas on LWC and BAC	<i>Not started - as per project timeline, Annex 3.14</i>
Activity 2.8 Publicity materials on biosecurity produced for tour operators	<i>Not started - as per project timeline, Annex 3.14</i>
Activity 2.9 Community meetings held on Provo to discuss the importance of biosecurity for protecting wildlife on LWC and adjacent islands	<i>Not started - as per project timeline, Annex 3.14</i>
Output 3. Restoration/protection strategy for offshore islands following 'rapid survey' for reptiles and rodents.	<p>3.1 Rapid survey methods devised by end of year 1</p> <p>3.2 Rapid survey implemented on 10 offshore cays through first, second and third project year and data shows extent of reptile and rodent populations.</p> <p>3.3 Updated IUCN TCI Iguana conservation management plan – to include the iguana restoration strategy agreed by DECR/TCNT/IUCN Iguana specialists group</p> <p>See Section 3.2.</p> <p>3.1 YR1: Trial of monitoring methods completed on LWC and a protocol produced, evidence in Annex 3.6</p> <p>3.2 YR1: 11 offshore cay surveys completed for rodents, cats and iguanas, five around LWC and six around BAC. Night surveys for boas were completed on Little Ambergris and Long Cay. evidence in Annex 3.9.</p> <p>3.3 <i>Not started</i></p>
Activity 3.1 Devise and deploy rapid survey methodology for rodents and iguanas to apply across at least 10 cays surrounding target sites (Donna, Mangrove, Lizard, Bird, Fort George, Grouper, Dellis, Water, Pine, Bush, Little Ambergris, Fish, Six Hills, Long, and Middleton)	YR1: Trial of monitoring methods completed on LWC. Protocol for Offshore Cays surveys produced, see Annex 3.6 . 11 offshore cay surveys completed for rodents, cats and iguanas, five around LWC and six around BAC. Night surveys for boas were completed on Little Ambergris and Long Cay. Evidence in Annex 3.9 . Results to be fully analysed and written up in YR2 and further surveys completed.
Activity 3.2 Use the results to update the IUCN conservation management plan for TCI iguanas – to include consultation with the IUCN SSC Iguana Specialist Group	<i>Not started - as per project timeline, Annex 3.14</i>
Activity 3.3 Research paper on effects of rats on iguanas	<i>Not started - as per project timeline, Annex 3.14</i>

<p>Output 4. Capacity and efficacy of personnel with the project team (in TCI and the UK) to implement essential monitoring and biosecurity activities to address invasive vertebrates increased</p>	<p>4.1 Project team members develop competencies outside areas of specialism at the beginning of project</p> <p>4.2 Project team members confidence to address IAV issues increases through them independently developing plans/applications for future work</p> <p>4.3 Improved unsupervised performance of team members</p>	<p>See Section 3.2.</p> <p>4.1 Project team members involved in all project activities improving cross-organisational collaborative working, evidence in Annexes 3.3 & 3.9.</p> <p>4.2 Biosecurity training from experts delivered on LWC and BAC to 10 project partner staff on LWC and 8 project partner staff on BAC, evidence in Annexes 3.9, 3.10, & 3.11</p> <p>4.3 <i>Not started</i></p>
<p>Activity 4.1 Experts in each area above train others within the project team to undertake the tasks needed for successful implementation of biosecurity plans: monitoring (native wildlife and predators), ongoing surveillance, minimising the risk of introducing rodents through the transport of goods and people, and implementing incursion plans should rodents or other invasive alien vertebrates be detected on Big Ambergris Cay</p>		<p>YR1: Project team members involved in all project activities improving cross-organisational collaborative working, evidence in Annexes 3.3 & 3.9. Biosecurity training from experts delivered on LWC and BAC to 10 project partner staff on LWC and 8 project partner staff on BAC, evidence in Annexes 3.9, 3.10, & 3.11. In YR2 there will be more of a focus on stakeholder engagement/endorsement required for implementing biosecurity plans. The extent of the invasion of rats and mice on BAC needs to be determined.</p>
<p>Activity 4.2 Questionnaires for team members and line managers /collation of ad hoc performance feedback/ no. of new initiatives started</p>		<p>YR1: Feedback collected from the biosecurity training course held on LWC, evidence in Annex 3.11. Feedback via email and biannual conference calls, evidence in Annex 3.7, incorporated into ways of working, see Section 2. In YR2 feedback will be continually sought, including with questionnaires for specific events.</p>
<p>Output 5. Project managed and monitored effectively</p>	<p>5.1 Project monitoring plan developed in first 3 months and reviewed biannually</p> <p>5.2 Regular communication maintained between the team; biannual skype calls and annual visits and reports from managers</p> <p>5.3 Annual face to face project meetings take action to address any challenges and maintain engagement of senior managers within project partners</p>	<p>See Section 3.2.</p> <p>5.1 Not completed. Will be completed during first quarter of YR2.</p> <p>5.2 Project leader in regular contact with project partners via email. First bi-annual call completed in May 2017, evidence in Annex 3.7. Second bi-annual conference call cancelled due to hurricane impacts, see Section 2.</p> <p>5.3 Face-to face meetings completed with all project partners in April 2017 by previous project leader, Elizabeth Radford, and in March 2018 by current project leader.</p> <p>5.4 Project technical reporting from project partners for YR1 have been received by RSPB, evidence in Annexes 3.4 & 3.13. Some financial reporting from project</p>

	5.4 Technical and financial reporting to RSPB and Darwin accurate and on time and to high standard.	partners is still outstanding. Darwin reporting completed and submitted by the deadline.
Activity 5.1 At project start-up develop and agree project monitoring plan and use it as a project management tool to monitor implementation progress		YR1: Not completed. Will be completed during first quarter of YR2.
Activity 5.2 Bi-annual skype or conference call for core project team to plan forthcoming work schedule ensuring boats and personnel availability coincide		YR1: First bi-annual call completed in May 2017, evidence in Annex 3.7 . Second bi-annual conference call cancelled due to hurricane impacts, see Section 2. In YR2 plan to have conference calls in May and November 2018.
Activity 5.3 Bi-annual internal (project team) technical and financial reporting to RSPB		YR1: First bi-annual reporting for in-Territory partners postponed due to hurricane impacts, see Section 2. Project technical reporting from project partners for YR1 have been received by RSPB, evidence in Annexes 3.4 & 3.13 . Some financial reporting from project partners is still outstanding. However, some were not received until significantly after the deadline set within the contract, which increases the pressure on the project leader and finance manager. In YR2 we will work to tighten the partnership in terms of reporting to schedule.
5.4 3x annual meeting of project team and management in TCI (Providenciales) just prior to the spring fieldwork session (March/April each year) for planning and sharing of data between all project partners from subsequent years.		YR1: The Project launch was completed in April 2017 (Annexes 3.1 & 3.2). An annual meeting was not planned prior to the March 2018 trip due to the impacts of Hurricanes Irma and Maria (see Section 2). A meeting will be planned at the start of the next field trip in YR2.
5.5 Mid term evaluation with project team		<i>Not started - as per project timeline, Annex 3.14</i>
5.6 Final evaluation with external consultants		<i>Not started - as per project timeline, Annex 3.14</i>

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

N.B. if your application's logframe is presented in a different format in your application, please transpose into the below template. Please feel free to contact Darwin-Projects@ltsi.co.uk if you have any questions regarding this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: (Max 30 words)</p> <p>Improved implementation of Invasive Alien Vertebrate management in TCI and increased capacity to sustain the improvement, resulting in better protection of TCI's natural assets that support the tourist industry.</p>			
<p>Outcome:</p> <p>The critically endangered Turks and Caicos Iguana is secured through the establishment of effective biosecurity plans/invasive vertebrate control on two offshore islands, and the identification of islands for future restoration.</p>	<p>No. of iguanas is stable and/or increasing on two target cays from the baseline measured in the first year</p> <p>Big Ambergris Cay remains predator free</p> <p>Management plans IAV component strengthened with clear methodologies for ground staff and timetable for IAV control activities</p> <p>Biosecurity plans agreed by TCNT Council, BAC management, tourist operators and developers and approved by TCI Cabinet</p> <p>Strategy for priority island restoration/protection published with actions agreed by the project team.</p>	<p>Updated IUCN Conservation status assessment for Turks and Caicos. Iguana/boa/reptile database for TCI Government</p> <p>Biosecurity plan reports from Big Ambergris Cay.</p> <p>Revised site management plans, annual work plans and budgets</p> <p>TCNT Council meeting minutes, cabinet paper, attendance at tourist and developers seminars and minutes of cabinet meeting</p> <p>Strategy contained within the updated IUCN TCI Iguana conservation management plan.</p>	<p>IAV control and Biosecurity plans are properly implemented by management authorities</p> <p>TCI Government continue to see importance of biosecurity to TCI's native wildlife and related industries</p> <p>Tour operators and developers ready to engage in discussions about biosecurity</p>
<p>Outputs:</p> <p>1. Baseline data established and short term trends identified for Little Water Cay and Big Ambergris Cay for iguanas, boas, humans and predators</p>	<p>1.1 Transect lines, capture-mark-recapture sites and camera networks in place on both islands and data collected for 3 consecutive years on selected reptile and predator species</p> <p>1.2 Effects of humans on iguanas is documented</p> <p>1.3 Recommendations for managing tourists accessing Little Water Cay from neighbouring unmanaged access points made to DECR</p>	<p>1.1 Fieldwork reports, Iguana, boa and rat monitoring data</p> <p>1.2 Peer reviewed publications on iguana-human interactions.</p> <p>1.3 Tourism management recommendation report.</p> <p>1.4 Reptile conservation on Big Ambergris Cay - report</p>	<p>Fieldwork is not further rendered impossible again through further hurricanes or other natural phenomena</p> <p>DECR ,TCNT, Ambergris Cay developers adopt and implement management recommendations for Little Water Cay and Big Ambergris Cay</p>

	1.4 Recommendations on conserving reptiles made to Ambergris Cay Facilities Ltd.		
2. Biosecurity/ IAV plans developed, approved and implemented for Little Water Cay and Big Ambergris Cay	<p>2.1 Cat presence/absence quantified by the end of the second year of fieldwork</p> <p>2.2 Additional control and monitoring activities recommended in the biosecurity plans are undertaken by local staff on Little Water Cay</p> <p>2.3 Rodent incursion protocol in place as part of biosecurity plans on Big Ambergris Cay</p> <p>2.4 Rodent incursion protocol and biosecurity signage in place, and knowledge of importance of biosecurity increased amongst key stakeholder groups specifically tour operators on Little Water Cay</p> <p>2.5 Island biosecurity plans signed off by DECR and TCNT Council.</p> <p>2.6 Biosecurity policy drafted by DECR with input from the project team</p> <p>2.7 Community meetings held on Provo to discuss the importance of biosecurity for protecting wildlife on LWC and adjacent islands</p>	<p>2.1 Results from survey data.</p> <p>2.2 Management plan, annual work plan, field officer log books</p> <p>2.3 Developers include biosecurity measures within applications.</p> <p>2.4 Tourist operators alert tourists to importance of biosecurity using signs, publicity materials and tour scripts as part of boat trips to Little Water Cay.</p> <p>2.5 MOU/statement of ongoing collaboration to maintain biosecurity DECR/TCNT/DoA</p> <p>2.6 DECR submits Cabinet paper and Council minutes</p> <p>2.7 Reports from at least two community meetings from DoA</p>	<p>IAV control and Biosecurity plans are properly implemented by management authorities – i.e. local technical capacity is not lost</p> <p>Tourist and developers continue current engagement levels with project team</p> <p>Feral cat eradication is fully achieved in 2019</p>
3. Restoration/protection strategy for offshore islands following 'rapid survey' for reptiles and rodents.	<p>3.1 Rapid survey methods devised by end of year 1</p> <p>3.2 Rapid survey implemented on 10 offshore cays through first, second and third project year and data shows extent of reptile and rodent populations.</p> <p>3.3. Updated IUCN TCI Iguana conservation management plan – to include the iguana restoration strategy agreed by DECR/TCNT/IUCN Iguana specialists group</p>	<p>3.1 Iguana and rodent rapid survey methodology written and distributed to IAV community through IUCN Invasive Species Specialist Group 'Aliens' list server and other similar distribution mechanisms/networks.</p> <p>3.2. Peer reviewed publication on effects of rodents on reptiles</p> <p>3.3. Published IUCN TCI iguana conservation plan</p>	<p>Islands are accessible by project team</p> <p>Specialist group members (volunteers) willing to engage in plan development</p>

<p>4. Capacity and efficacy of personnel with the project team (in TCI and the UK) to implement essential monitoring and biosecurity activities to address invasive vertebrates increased</p>	<p>4.1 Project team members develop competencies outside areas of specialism at the beginning of project</p> <p>4.2 Project team members confidence to address IAV issues increases through them independently developing plans/applications for future work</p> <p>4.3 Improved unsupervised performance of team members</p>	<p>4.1 Project team feedback forms on fieldwork</p> <p>4.2 Team member plans/applications for future work.</p> <p>4.3 Team leaders/line managers assessment and annual appraisals.</p>	<p>Team members are always available for fieldwork and willing to learn new techniques.</p> <p>Staff retention and progression allows them to implement and share skills</p>
<p>5. Project managed and monitored effectively</p>	<p>5.1 Project monitoring plan developed in first 3 months and reviewed biannually</p> <p>5.2 Regular communication maintained between the team; biannual skype calls and annual visits and reports from managers</p> <p>5.3 Annual face to face project meetings take action to address any challenges and maintain engagement of senior managers within project partners</p> <p>5.4 Technical and financial reporting to RSPB and Darwin accurate and on time and to high standard.</p>	<p>5.1 Monitoring plan and updates.</p> <p>5.2 Skype meeting minutes and project manager's reports.</p> <p>5.3 Meeting action points completed, attendance list for annual meetings.</p> <p>5.4 Technical and financial reports and approval notes from Darwin.</p>	

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

1. Baseline and trend data for iguanas and boas, humans and predators

1.1 Detailed surveys of iguanas on Little Water Cay: including setting up transects with camera traps

1.2 Monitoring of cats deployed on Little Water Cay, using a variety of detection methods (including motion cameras), establish presence/absence on Little Water Cay

1.3 Impact assessment of human activity on iguanas

1.4 Detailed survey of native iguanas and boas on Big Ambergris Cay: iguanas, boas, including setting up transects with monitoring cameras

1.5 Management recommendations on tourist management and reptile conservation for LWC and BAC written and management plans updated

1.6 Research paper on human-iguana interactions

2. Development of biosecurity plans

- 2.1 Develop a biosecurity plan for Little Water Cay - a model for a publicly accessible island
- 2.2 Consultation on plan across the DECR and DoA with Ambergris Cay, planning and developers: modification as necessary and write up
- 2.3 Develop a biosecurity plan for Big Ambergris Cay – a model for private islands subject to development pressure
- 2.4 Consultation on plan, adaptation, modification, write up and sign off by DECR and Big Ambergris Cay management
- 2.5 Write cabinet paper for the approval of the biosecurity plans and a draft biosecurity policy with the aim of approval/sign off by TCI Government
- 2.6 Presentation of the biosecurity plans to Planning Department, tourist operators, boat captains, developers and home owners
- 2.7 Signage developed and installed for landing areas on LWC and BAC
- 2.8 Publicity materials on biosecurity produced for tour operators
- 2.9 Community meetings held on Provo to discuss the importance of biosecurity for protecting wildlife on LWC and adjacent islands

3 Rapid survey of offshore cays

- 3.1 Devise and deploy rapid survey methodology for rodents and iguanas to apply across at least 10 cays surrounding target sites (Donna, Mangrove, Lizard, Bird, Fort George, Grouper, Dellis, Water, Pine, Bush, Little Ambergris, Fish, Six Hills, Long, and Middleton)
- 3.2 Use the results to update the IUCN conservation management plan for TCI iguanas – to include consultation with the IUCN SSC Iguana Specialist Group
- 3.3 Research paper on effects of rats on iguanas

4. Training and capacity building

- 4.1 Experts in each area above train others within the project team to undertake the tasks needed for successful implementation of biosecurity plans: monitoring (native wildlife and predators), ongoing surveillance, minimising the risk of introducing rodents through the transport of goods and people, and implementing incursion plans should rodents or other invasive alien vertebrates be detected on Big Ambergris Cay
- 4.2 Questionnaires for team members and line managers /collation of ad hoc performance feedback/ no. of new initiatives started

5. Project management/ Monitoring

- 5.1 At project start-up develop and agree project monitoring plan and use it as a project management tool to monitor implementation progress
- 5.2 Bi-annual skype or conference call for core project team to plan forthcoming work schedule ensuring boats and personnel availability coincide
- 5.3 Bi-annual internal (project team) technical and financial reporting to RSPB
- 5.4 3x annual meeting of project team and management in TCI (Providenciales) just prior to the spring fieldwork session (March/April each year) for planning and sharing of data between all project partners from subsequent years.
- 5.5 Mid term evaluation with project team
- 5.6 Final evaluation with external consultants

Annex 3 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

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