Department for Environment Food & Rural Affairs





Darwin Plus: Final Report

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

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

Submission Deadline: no later than 3 months after agreed end date.

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

Project reference	DPLUS128		
Project title	Safeguarding Cayman's Sister Islands from invasive species		
Territory(ies)	Cayman Islands		
Lead Organisation	RSPB		
Project partner(s)	Department of Environment, Department of Agriculture, University of Aberdeen, National Trust for the Cayman Islands		
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Project Leader name	Joe		
Project website/Twitter/blog etc.	https://www.facebook.com/CaymanSisterIslandsInvasiveSpecies/		
Report author(s) and date	Joe J , Jane , AJ Frederic , Vaughn Simone , and Tom		

Darwin Plus Project Information

1 Project Summary

The largely undeveloped Sister Islands (Cayman Brac and Little Cayman) are Cayman's environmental flagships, home to the Territory's only Ramsar site and its most internationally significant wildlife. Invasive Alien Vertebrates (IAV) pose a major yet largely unmanaged threat. Feral cat predation has resulted in catastrophic native species declines whilst invasive Green Iguanas are spreading following their repeated introduction from Grand Cayman. This project aimed to strengthen Territory-wide biosecurity and implement IAV management with local communities, building knowledge, capacity, and support for effective and sustainable action.

IAVs are a major driver of biodiversity loss and have already contributed to several extinctions in the Cayman Islands (three bird and two mammal species). Active management of IAV through control and/or eradication, coupled with biosecurity controls to prevent new arrivals, are the most effective tools available for reducing this threat.

On Cayman's Sister Islands, the Critically Endangered Sister Islands Rock Iguana is under severe threat from feral cat predation and Green Iguana hybridisation and competition by Green Iguanas. Three range restricted but poorly known endemic reptiles (two dwarf boa species and Cayman Brac Blind Snake), the Western Hemisphere's largest Red-footed Booby colony and several other nationally important seabird colonies are also all threatened by predation from feral cats and rats.

Invasive Green Iguanas are already established on Grand Cayman. The population skyrocketed to an estimated 1.6 million individuals, with such severe impacts that the Cayman Islands

Government (at time of project development), had spent over £8.6million on their control. Unfortunately, the Cayman Islands lacks a coordinated multi-agency biosecurity policy and there are almost no effective inter-island biosecurity controls. This has led to the arrival of Green Iguanas to both Sister Islands.

Detailed engagement indicates that a high percentage of the population on Little Cayman are supportive of reducing the impacts of IAV on their native wildlife, with community members previously writing to Government Ministers requesting action. Technical and resource constraints were the main barrier. In Cayman Brac, the need for biosecurity is recognised, but further community collaboration is required to enable long-term IAV management.

The project was designed to address the contexts of each of the Sister Islands and represents Cayman's first cross-sector holistic approach to biosecurity. At time of project development, Little Cayman (82ha, human population c.160), had robust data on native iguanas, robust data on large seabird colonies, limited data on cryptic reptiles and strong community support for both Green Iguana, rodent control, and feral cat control/eradication. Cayman Brac (3,527ha, human population c.2,003), had limited native iguana data, robust data on two declining seabird colonies, limited data on cryptic reptiles and variable community support for IAV management, with strong support for Green Iguana and rodent control but limited support for feral cat control.



Figure 1 Cayman Sister Islands, Little Cayman and Cayman Brac

2 Project Partnerships

The formal partners working with the Royal Society for the Protection of Birds (RSPB) on this project are:

(i) Cayman Island's Government Department of Environment (DoE)

Responsible for: Lead of operational activities on island, including surveys, IAV control measures, and on-site biosecurity efforts. Assisting project administration, providing in-kind support in the form of significant staff time, accommodation, on-island transportation, and facilitating local stakeholder participation.

(ii) Cayman Island's Government Department of Agriculture (DoA)

Responsible for: Providing veterinary support during IAV control operations, collaboration in planning and implementing improved inter-island biosecurity measures within the Cayman Islands (through partnership with DoE).

(iii) University of Aberdeen School of Biological Sciences (UoA)

Responsible for: Providing an institutional research base, scientific advice to ensure consistent, accurate and robust data collection by the partnership including assistance to DoE staff in survey design and implementation for IAV, and supervision of students studying at-risk cryptic endemic reptiles.

In January 2023 the **National Trust for the Cayman Islands** (NTCI) joined the project partnership taking on the community engagement activities from RSPB via the recruitment of a Community Engagement Officer based on Cayman Brac.

RSPB has been working with the OTs for over 25 years. The underlying principle of our work is to establish enduring relationships with local partners to help support the development of sustainable and locally-lead conservation programmes. The Cayman Islands Department of Environment and the National Trust for the Cayman Islands are longstanding RSPB partners.

The partnership has been a strong one. Communication between partners has been effective and a positive environment fostered throughout. RSPB, NTCI and DoE have agreed to continue collaborating and were successful in securing further funding from Darwin Plus, building directly on this project in *DPLUS207 <u>Empowering and preparing Cayman's Sister Island's to tackle invasive mammals.</u> There is not currently a role for UoA in this next project due to its focus on building on-island social support, but partners are open to further collaboration in future. DoA are no longer a formal partner in the sister islands partnership but continue to be engaged as a priority stakeholder. However, DoA are a partner in the Darwin Strategic, <i>DPSTR001 <u>Enabling</u> effective biosecurity in the Caribbean UK overseas territories* which will address recommendations and learnings from this project (see <u>Sustainability and legacy)</u>.

3 **Project Achievements**

3.1 Outputs

Output 1: Enhance capacity of in-Territory agencies (DoE/DoA/Port Authority) to plan, manage, implement, and monitor biosecurity and IAV control

During the project, partner capacity was increased to coordinate biosecurity activities via recruitment of a RSPB Biosecurity Officer, Tanja Laaser, seconded to DoE (**indicator 1.1**). Subsequently, following Tanja's resignation (for reasons outside of the project's control, <u>Lessons learnt</u>), a biosecurity consultant was bought on board to coordinate the development of the inter-island biosecurity plan (**annex 5.1**).

DoE project staff (6) received support and advice re: invasive species control from international expertise, Robinson Holdsworth Conservation Trust (RHCT) – who completed a review of DoE feral cat control operations (**annex 5.2**). All DoE project staff completed at least one feral cat control operation on Little Cayman during the project and lessons have been shared with NTCI for staff (4) completing similar control including at sites on Grand Cayman. NTCI Environmental Policy Officer, AJ McGovern and Community Engagement Officer, Alex Flores both supporting this project received training throughout. (**indicator 1.2**).

An Alien Species Control Officer was recruited (<u>Output 4</u>) during the project and this role was included in a budget request to Cayman Islands Government (CIG) as well as the biosecurity officer post (**indicator 1.3**). Unfortunately, these roles were not secured due to significant budget cuts to all government departments as a result of CIG mandated cost of living increase payments. CIG budget rounds are every two years, so the next opportunity for this will be 2025 – post project end, but funding for this is secured supported by Darwin Plus (DPLUS207, DPSTR001) in the interim (<u>Sustainability and legacy</u>).

DoA are in the final stages of drafting for a revision to the 2015 Animals Act which is hoped to be passed before end 2024. This is currently confidential prior to inter-departmental consultation, so partners are yet to see it, however DoA has confirmed there are likely provisions within this to support the objectives of the project i.e., requirements to register and desex any new pets arriving on the Sister Islands. Along a similar vein, the revised <u>Plant Protection Bill</u>, was gazetted in August 2023 and strengthens in-territory plant biosecurity. A national Biosecurity Policy was not drafted as this needs to be informed by the Biosecurity Plan which took longer to develop, in part, due to staffing changes (see above) and extensive stakeholder consultations (**indicator 1.4**). Supporting the improvement to biosecurity legislation is a core component of the Darwin Strategic Project, DPSTR001 (<u>Sustainability and legacy)</u>.

A biosecurity audit (**annex 5.3**) was completed for the Sister Islands and extensive stakeholder consultations completed by Biosecurity Officer, Tanja Laaser and Biosecurity consultant, Claire Dell to develop the inter-island Biosecurity Plan (**annex 5.1**). The plan was developed following extensive consultations with 15 organisations who provided a number of recommendations (**annex 5.4**) to improve inter-island biosecurity. All stakeholders were given sight of and opportunity to comment on the final plan. The plan focuses on high-risk pathway prevention, informed by the initial audit, and will be put forward to the National Conservation Council (in which Government agencies DoE, DoA as well as NTCI have a permanent seat) for further comment and endorsement in September 2024 (**indicator 1.5**). Some actions are already being addressed (Sustainability and legacy).

Output 2: Enhance in-Territory community capacity to implement and monitor biosecurity and IAV control

Volunteers have supported Green Iguana night searches, mostly on Cayman Brac, whereby 26 volunteers participated in at least 1 night search (annex 5.5) and there are now 34 members of the Green Iguana volunteer WhatsApp group aiding with responding to sightings, helped by the new Alien Species Control Officer, Nick Ebanks. Additional night searches were coordinated with support of <u>Green Iguana B'qonna</u> volunteers on Little Cayman and additional culls completed by members of the Grand Cayman culling community (annex 5.6). Volunteer night searches have been formally incorporated into the Green Iguana Control Plan (annex 5.7). Future activities for volunteers are identified in the inter-island biosecurity plan (annex 5.1) – these focus mainly on surveillance activities, reporting alien species sightings and monitoring barge arrivals as appropriate and will soon begin to be implemented following endorsement of the plan (<u>Output 1</u>) (indicator 2.1).

RSPB Community Engagement Officer, Marique Cloete was recruited (seconded to DoE) and supported activities until resignation in early 2023 (see <u>Lessons learnt</u>). NTCI entered the partnership to support community engagement activities and to backfill this role as a full-time position. This was the first paid position in the Trust's 35+ year history to be based on the Sister Island's (**indicator 2.2**).

A baseline (2022) (annex 5.8) and repeat (2024) (annex 5.9) community survey were completed to assess a number of core project themes on both islands. In total, 465 (23%) on Cayman Brac and 142 (88%) on Little Cayman were engaged during community surveys (table 1). In addition, multiple events took place throughout the project on both islands and were well attended (annex 5.6) including visits from invasive reptile expert Joe Wasilewski to discuss Green Iguanas, Robinson Holdsworth Conservation Trust's visit to Little Cayman (<u>Output 4</u>) and the Brown Booby predator control film screening on Cayman Brac. Further engagement was gained via Green Iguana volunteer participation (see above), and we gained 219 local followers to the project Facebook page (annex 5.6) (indicator 2.4).

	Baseline survey (2022/23)	Repeat survey (2024)**	Duplicate participants	Total participants	Population*	Approx. %
Cayman Brac	200	291	26	465	2,003	23%
Little Cayman	61	93	12	142	160	88%
			** survey results ba	ased on completed	*according to 2 surveys only (215 (

** survey results based on completed surveys only (215 CB, 75 LCM) Table 1 Community survey participant data summary

Though there is a general agreement between both islands on a number of issues, i.e., free roaming cats are an issue, there are some significant differences in attitudes between Little Cayman and Cayman Brac (<u>Lessons learnt</u>). Reflecting the very different communities on each island.

Importance of desexing pets (indicator 2.3). On Little Cayman, a large majority (65%), and even higher among cat owners, (79%) believe desexing (spay/neuter) should be mandatory. This differs from Cayman Brac where only 46% supported mandatory desexing, although this was an increase of c.10% from the 2022 survey.

Importance of not relocating pets to Little Cayman (indicator 2.3). No responses across either survey indicated that the relocation of feral cats to Little Cayman was an acceptable solution to managing unwanted pet cats. This issue, legally at least, is addressed via the Alien Species regulations which prohibit the abandonment of any alien species (<u>Outcome</u>). Of course, this does not necessarily mean it has not happened in the past or will not continue to happen now, but anecdotally we have received mixed responses to the extent of this issue from a number of residents and stakeholders, some believing it does happen and others never hearing of it. Monitoring of this issue will be addressed in DPLUS207 as part of a biosecurity surveillance program that will be established (<u>Sustainability & legacy</u>) and will go some way to monitoring and addressing this risk.

Responsible pet management/ownership (indicator 2.4). A majority on Little Cayman (84%) and on Cayman Brac (71%) believe cat owners should restrict the movement of their cats in some way (e.g., restricted to their property, or kept indoors at certain times, like at night). This is an increase from the 2022 survey for both islands whereby 77% were supportive of restricting cats' mobility on Little Cayman and 62% on Cayman Brac (annex 5.8). However, a sizeable minority (21%) believed cats should be allowed to roam on Cayman Brac.

Knowledge of native wildlife and invasive species (indicator 2.4). On both islands, respondents indicated a fairly consistent knowledge of native species across both surveys, evidenced by their ability to name at least 1 native species (Cayman Brac: baseline 54%, repeat: 50%, Little Cayman baseline: 67%, repeat: 68%). As there were few repeat respondents (table 1), we are confident this is a relatively accurate description of residents' knowledge of native species. On Cayman Brac, the number of young people who named one native species was even lower, with only 36% of under 25's naming one - though this was up from 26% in 2022. However, it is worth noting that a large proportion of responses included many non-native and invasive species, such as agricultural and ornamental plants, Green Iguanas, and feral cats/dogs/chickens, as well as species endemic to Grand Cayman like the Blue Iguana. On Little Cayman, the Sister Islands Rock Iguana is the species most associated with the island (79% of responses), with widespread agreement that the uncontrolled spread of feral cats is an issue (79%). The vast majority (83%) believe cats are invasive. On Cayman Brac, there is widespread agreement that the uncontrolled spread of feral cats is an issue: 65% agree (including 56% of cat owners) but only a slim majority (54%) believe cats compete with or hunt native wildlife and less than half (46%) considered them invasive, with a large minority (29%) disagreeing. Among cat owners, less respondents (37%) believed cats to be invasive than not (41%).

When asked how native species are faring in the Sister Islands there was a definite shift towards negative sentiment about their status in the second survey – a more realistic assessment of the populations. 41% considered Sister Islands Rock Iguanas to be *"doing well"* and 26% similarly for Brown Boobies, but this had decreased to 18% for the rock iguanas and 15% for boobies in the second survey.

Knowledge of biosecurity (indicator 2.5). Awareness of and participation in biosecurity was much higher on Little Cayman than on Cayman Brac. On Little Cayman a large majority (81%) were familiar with the concept of biosecurity, but less than half (41%) indicated they act, whereas on Cayman Brac a smaller majority (60%) had awareness of biosecurity with 29% acting towards it. Response options provided were:

(1) This is the first time I have heard about this

(2) I am aware of what biosecurity is, but I have never taken any action related to it, e.g. I have heard of the 'Don't pack a pest' campaign in Cayman

(3) I am aware of the term and take appropriate action to reduce this risk, e.g. I always check my bags for pests before traveling between islands or I clean my shoes before travel, so I do not transport pests/and or alien species.

It is clear that there is a need for regular ongoing campaigning to increase active participation in preventing the spread of alien species. Currently, opportunities to participate are limited to reporting sightings of Green Iguanas and participating in night searches (*See indicator 2.1 above*). There are volunteer opportunities outlined in the inter-island biosecurity plan and these DPLUS128 Final Report 2024

will need to be promoted in future (**indicator 2.5**). DPLUS207 will go some way to support this (<u>Sustainability and legacy</u>).

Output 3: The baseline presence of IAVs and nationally significant wildlife is better understood. Interactions and impacts of IAVs are determined and used to inform conservation management and community engagement.

There is anecdotal evidence of mice, black and brown rats on both islands but monitoring and trapping efforts have only shown evidence of Black Rats, *Rattus rattus*. The rodent monitoring has been focussed on Little Cayman to ascertain knowledge of impacts (i.e., population changes) to any rodents following feral cat control efforts (**annex 5.10**). A pre feral cat control baseline was established in March 2022 and a repeat survey completed in March 2024. An increase was observed, but not a significant one. A spike in rodent numbers was recorded in Nov 2023 following the wet season in a more remote interior area of relatively undisturbed dry forests, ponds and shrublands. This provides some indication that, as with other tropical islands, Little Cayman's rodent populations (at least Black Rats) are dynamic and result in seasonal outbreaks in response to seasonal resources¹ and so are likely driven by bottom-up processes driving a natural boom and bust population cycle (**indicator 3.1**). Continued monitoring of rodents is needed to better understand the impacts of ongoing feral cat control as well as impacts on native species. This is embedded as part of DPLUS207 (Sustainability and legacy).

A population assessment of feral cats on Little Cayman was completed using two camera trap grids at the West End and central forest areas of the island. The population of feral cats on Little Cayman was estimated at c.200 individuals and relatively widespread across the island (**annex 5.11**). A spotlight survey took place before cat control efforts, and a repeat was conducted after four control sessions. Transects with the most detections in 2021 were through the main town centre in the West End, the landfill, and on the Northeast coast clustered around where a colony of free-roaming cats are suspected to be fed by a resident (**annex 5.12**). Feral cat control efforts are estimated to have removed c.88% of feral cats (<u>Outcome</u>) but with a breeding population still present, continued control is required to prevent the population rebounding (**indicator 3.2**).

UoA conducted three separate cryptic reptile survey visits in June 22, July and Nov 23 across four different habitat types (Coastal Shrubland, Dry Forest, Dry Shrubland, Man-modified) (annex 5.13). Surveys involved 1 MSc and 3 PhD students from UoA (indicator 3.3, 3.4). Volunteers were encouraged for the second and third trips (annex 5.6), but participation was relatively low, perhaps due to the surveys being conducted during the wet and therefore guieter 'off' season. Three separate methods were used; drift fencing/pitfall traps, line transects and refugia. Across all surveys only two instances of target species were recorded during the Cayman Brac transects (Cayman Brac Boa Tropidophis schwartzi) and no blind snakes were found on Little Cayman despite July & Nov 2023 trips putting greater emphasis on trying to find this species (indicator **3.3**). Given the challenge of survey methodologies for this species in, for example, iron shore terrain, this does not mean that blind snakes are not present. Indeed, blind snakes are present on both Grand Cayman and Cayman Brac and there is no apparent reason for them not to be on Little Cayman, although they have not been confirmed in feral cat necropsies or eDNA metabarcoding dietary analysis. Partners have agreed that the methods used are ineffective and a greater, prolonged effort, perhaps utilising novel methods (e.g., soil/water eDNA sampling), is required to establish the population and habitat preferences for any of the original project target species. However, focus may be better placed on blind snakes on Cayman Brac which have not been recorded in recent years and are Critically Endangered. The lack of sightings data is therefore not able to support species action plan development as we had hoped, but a broader Cayman Snake Conservation Plan is in development (indicator 3.6).

To assess the impacts of feral cats on native species, during control operations (<u>Output 4</u>) each cat euthanised was examined and necropsied, whereby the digestive systems were inspected to gain insights regarding what cats had consumed. This serves as an indicator of impact on the

¹Andreassen HP *et al.* Population cycles and outbreaks of small rodents: ten essential questions we still need to solve. Oecologia. 2021 Mar;195(3):601-622. doi: 10.1007/s00442-020-04810-w. Epub 2020 Dec 28. Erratum in: Oecologia. 2021 Jan 30;: PMID: 33369695; PMCID: PMC7940343.

island's biodiversity. The most frequent animal remains found in necropsies were birds (68%), rats (58%) and reptiles (39%). During this study, Sister Islands Rock Iguana remains were found in 9% of digesta of feral cats. To better understand the scope of species being consumed and the relationship between the habitat quality and dietary options, 36 faecal samples were analysed by *Joahna Ventures LTD*, Canada, using environmental DNA (eDNA) metabarcoding. By analysing the DNA present in their gut, insights into specific prey species the cats had eaten were identified. The Cayman Galliwasp *Comptus maculatus*, an IUCN Critically Endangered listed species and near-threatened White Crowned Pigeon *Patagioenas leucocephala* were two species found in the eDNA analysis that had not been detected through field observations. Further evidence of predation on Brown Booby chicks and adult birds was recorded and prompted control efforts (Output 4) (annex 5.6). A report summarising impacts on Cayman wildlife and the health of feral cats is available in annex 5.14 (indicator 3.5).

Output 4: Reduced impact of IAVs on globally threatened Sister Islands species through effective management.

Seven separate control efforts took place on Little Cayman between June 2022 and May 2024. 176 feral cats (**annex 5.15**) were removed of an estimated population of *c*.200 (see above) – *c*.88% reduction - far exceeding our expectations (<u>Outcome</u>). Methodology for feral cat control was refined during each effort and advice was provided by RHCT who completed an assessment of DoE's control operations in 2022 (**annex 5.2**). There was a significant reduction in capture rate between the June 2022 and Feb 2024 sessions despite the effort increasing substantially over time (<u>Lessons learnt</u>). This indicates that the majority of the feral cats that are not trap shy have been removed. Still, there are spatial gaps in effort, and these areas may be home to cats unexposed to the trapping efforts. These untargeted areas are thus recommended priorities for future trapping sessions². During feral cat control, cat owners were encouraged to register their cats with DoE and a database is now created. Additionally, DoE hosted the Humane Society on two occasions for the community access to veterinary services. Only one pet cat remains on Little Cayman that is not desexed. Robinson Holdsworth Conservation Trust completed a visit to Little Cayman in Nov 2022 to assess the feasibility of a feral cat eradication for Little Cayman. The eradication was deemed feasible, and a report was produced (**annex 5.16**) (**indicator 4.1**).

To address the steep declines and further evidence of feral cat predation events (**annex 5.6**, **5.14**) of the Brown Boobies on Cayman Brac, Alien Species Control Officer, Nick Ebanks was recruited, and a control program established at priority nesting areas, in particular the Lighthouse Trail. Efforts to remove feral cats (and rats, **indicator 4.5**) began part way through the 2023 nesting season, but results were positive. At the Lighthouse Trail a fledgling success of 77.8% compared to 12.5% of the previous season was recorded. A full report is provided in **annex 5.17**. Control operations have continued since Feb 2023 and a total of 36 feral cats (and 405 Black Rats) have been removed to date in key nesting areas (**indicator 4.2**). Although fledging success went up to 100% in the last two seasons, the colony has been in steep decline for years and this represents only 7 individuals fledged from a total of 10 and 9 nesting attempts respectively. A Seabird Conservation Plan is drafted and awaiting approval which will go towards aiding the recovery of this and 5 other seabird colonies in the Cayman Islands. A short film has been produced (**annex 5.18**) and was premiered for Cayman Brac audience in 2024 (**annex 5.6**). It will be shared more widely in due course aligned with the DoE's Seabird Conservation Plan.

An enhanced Green Iguana Control Plan (**annex 5.7**) has been formalised and implemented and includes regular DoE culls, volunteer night searches, integration of expert cullers from Grand Cayman and enhanced capacity for incursion response. No Green Iguana population surveys take place on the Sister Islands, so the current indication of population is recorded only via sightings/culls data (table 2). There does not appear to be any significant decrease in the population on either island, in fact, populations appear to be increasing on both islands (**indicator 4.3**). However, any perceived increase in population may well be, in part, a result of increased effort and awareness. On Cayman Brac, there has been a change in the age class distribution of captured Green Iguanas, with a drop in hatchling and sub adult captures and a 20% increase to

² The latest effort in May 24 (not included in the report, but included in the total cats removed [176]) targeted many of the accessible areas recommend

adult captures between 2020 and 2023 (annex 5.5). Hitting the adults harder will hopefully reduce overall numbers with time by removing reproductively active individuals. We are confident this will have some impact, but until the enhanced control programme has been implemented for a sufficient amount of time, planning for eradication on either island is not deemed feasible (indicator 4.4).

	2020	2021	2022	2023	2024*
Cayman Brac	182	145	169	172	124
Little Cayman	2	6	10	16	13
					*to July

Table 2 Combined Green Iguana captures and sightings for Little Cayman and Cayman Brac 2020 - (mid) 2024

The priority sites for rodent control were focused on Cayman Brac at the Lighthouse Trail, Goat farm and along the Southside shoreline (fig 3) in support of the Brown Boobies (see above), given the well understood impacts of rodents on ground nesting birds and the steep declines in the Brac population. All rodent control was completed using T-Rex snap traps and non-toxic bait as there were concerns identified in the baseline community survey (**annex 5.8**) about the use of rodenticide (Lessons learnt). Rodent control was stopped at the southside site very quickly due to interference by hermit crabs, and at the Goat farm by Sept 2023 due to a change in landowner and access rights.



Figure 2 Cayman Brac predator control efforts, (1) Lighthouse Trail (2) Goat farm (3) Southside road

On Little Cayman, as it is unknown what (if any) impact rodents have on rock iguanas, feral cat control was prioritised because the evidence of their impact is well documented (<u>Output 3</u>). Some rat trapping effort was included alongside feral cat trapping, though this was mostly to reduce interactions of rats and cage traps and support rodent monitoring efforts (**indicator 4.5**).

Output 5: Project managed and monitored effectively

The project has been well monitored throughout, and a project SharePoint was set up to aid collaborative working. A monitoring plan was created and updated as necessary (annex 5.20) (indicator 5.1).

Quarterly project management meetings have been held (annex 5.12) to inform implementation and annual meetings were held in-territory with partners (including mid-term and end of project review sessions (see <u>Monitoring & evaluation</u>) (indicator 5.2, 5.3).

Partners have provided written reports of activities and updates via project meetings to aid submission of reports to Darwin – all of which have been on time and to a high standard (indicator 5.4).

3.2 Outcome

Outcome: Locally led biosecurity and Invasive Alien Vertebrate (IAV) management in the Sister Islands is established and implemented effectively, via sustainably increased capacity, improved knowledge, and community engagement.

The population of Sister Islands Rock Iguanas (fig 4) increased significantly in 2023 (1,834) compared to 2022 (1,000), which was the lowest estimated population size since the survey began. The 2023 estimate is similar to 2019 (1,928), and significantly lower than estimated in 2014 (3,847). Feral cat control appears to have had a significant impact on the average proportion of hatchlings, increasing from 4.5% in 2019 to 26% in 2023 (fig 4) (full report provided in **annex 5.19**). In addition, most residents (77%) indicated they have seen a difference in the abundance of wildlife, including Sister Islands Rock Iguanas, since feral cat controls began (**annex 5.19**). On Cayman Brac the challenge has been to identify an appropriate methodology that can establish population size as numbers are so low that the current methodology as applied on Little Cayman is ineffective. To address this, DoE, with support of Darwin Plus Local (DPL00026), attempted a pilot project to satellite tag and track iguanas to improve understanding of iguana ecology on the island. Unfortunately, this pilot project encountered multiple challenges both in terms of weather and technology and thus further work is required to estimate population size on Cayman Brac (**indicator 0.1**).

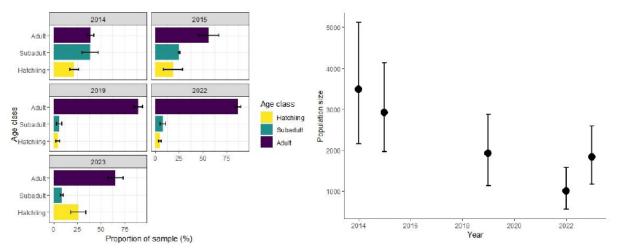


Figure 3 Left: The age-class distribution of animals observed during surveys from 2014 – 2023 shown as the average proportion and standard deviation of each age class for each survey year. Right: Population estimates of the rock iguana population in Little Cayman from 2014 – 2023. Points are mean estimates and error bars represent 95% confidence intervals

We have well exceeded the initial target of a 25% reduction in the feral cat population on Little Cayman. C.88% (176 of c.200) of the estimated number of feral cats have been removed since 2022, with the community providing insight as to where cats have been sighted to help inform control locations (**indicator 0.3**).

Since feral cat and rodent control was initiated on Cayman Brac in 2023 (<u>Output 4</u>) we saw an immediate response in Brown Booby fledgling success. Compared to the previous nesting season of 2021/2022 it can be seen that the 2022/2023 season produced a fledgling success of 77.8% compared to only 12.5% of the previous season. This is a clear sign that the impacts of invasive predators on the colony is significant and continued control is necessary.

Year	Nests Attempts	Eggs	Chick	Fledgling
2015/2016	20	18	17	17
2017 / 2018	14	14	11	8
2019 / 2020	18	11	8	4
2021 / 2022	25	16	7	2
2022 / 2023*	10	9	7	7

Figure 4 DoE results from Brown Booby nest monitoring of the Lighthouse Trail. * = Year of predator control (feral cats and rats). Note that seasons with insufficient fledgling data have been omitted.

An inter-island Biosecurity Plan (**annex 5.1**) has been developed following considerable stakeholder consultation. The plan is set to be presented to National Conservation Council at their next meeting in September for formal endorsement. Aspects of the plan are already being DPLUS128 Final Report 2024

addressed and are supported by both the Darwin Strategic (DPSTR001) and Darwin Main (DPLUS207) projects that have now begun (<u>Sustainability and legacy</u>) (**indicator 0.5**).

Alien Species regulations were not only submitted to cabinet but gazetted in Nov 2022 (**annex 5.24**). The regulations include relevant biosecurity provisions to stop the spread of invasive species such as banning the release, intentional or otherwise, of alien species (**indicator 0.7**). Unfortunately, a judicial review was granted following a legal challenge from Feline Friends and leave granted on part three of the regulations (which addresses alien species control measures but does not affect the key definitions or the ban of unpermitted release). However, the regulations were well defended by the (at the time) Premier, Wayne Panton, and the partnership is coordinating efforts to ensure these regulations remain in place.

We have not yet seen any significant decrease in the Green Iguana population on either island (see <u>Output 4</u>) (**indictor 0.2**). Due to extremely low encounter rates, we have not been able to fill scientific knowledge gaps for blind snakes and boas to develop conservation action plans for these species (see <u>Output 3</u>) (**indicator 0.6**).

3.3 Monitoring of assumptions

- Assumption 1 The project has been designed to address the individual contexts of the two islands appropriately. Held true. The project's design, in particular having staff based on Cayman Brac, has enabled us to continue to treat each island appropriately. In particular, regarding the feral cat management on each island and focusing on specific areas for control on Brac with additional communications ahead of control efforts (annex 5.6).
- Assumption 2 IAV control and Biosecurity plans are properly implemented by management authorities. Held true. The pre-project legal block that was in plan preventing cat control events was cleared in April 2022 and control restarted on the Sister Islands (<u>Output 4</u>). The inter-island biosecurity plan has been developed and has broad support currently. We expect it to be more formally approved/endorsed by the National Conservation Council before end 2024.
- Assumption 3 & 8 CI Government continue to see importance of biosecurity to CI's native wildlife and related industries and adopt Invasive Species regulations post project. Held true. Both DoE and DoA are supportive and other agencies (annex 5.1) have provided input into the inter-island biosecurity plan. Project species regulations (the Alien Species Regulations) were passed but gained considerable push back. The Premier, at the time, and his cabinet were supportive, however a new cabinet came into power in Nov 2023 and their priorities are less clear.
- Assumption 4 COVID-19 restrictions do not increase significantly to the point where it impacts the project teams' ability to complete project activities. Held true. Covid-19 did not cause further issues to the project. Indirectly, it did make the initial recruitment of the Community Engagement Officer more difficult given the proposed candidate was not comfortable with the territory's vaccination policy. These delays were challenging, but in the end not an issue to implementation and a suitable candidate recruited.
- Assumption 5 Biosecurity measures are not stalled by delays in Cabinet approval to proceed, given that biosecurity implementation requires a multi-agency approach. Held True, though not fully tested yet as the Biosecurity Plan is yet to be formally agreed. See Assumption 3 & 8 above.
- Assumption 6 Team members are always available for fieldwork and willing to learn new techniques. Held True. Supported further via recruitment of additional staff, Alien Species Control officer, on Cayman Brac. DoE staff received support from feral cat eradication expertise during their visit in 2022.
- Assumption 7 Staff retention and progression allows them to implement and share skills. Both in-territory positions with RSPB left the project for personal reasons, however this was not helped by the reality that RSPB salary structures are unable to effectively recruit for staff in the Cayman Islands given the excessively high cost of living (Lessons learnt). Staff retention within DoE has remained consistent and opportunities to engage with expertise, provided by RSPB and external consultants has provided ample opportunity to learn new skills. All partners are sharing and exchanging knowledge and expertise regularly such as between DoE and NTCI re: feral cat control on Grand Cayman.

- Assumption 9 & 16 Local community members continue to volunteer to support conservation efforts on Little Cayman <u>and</u> Little Cayman community remain supportive and committed to feral cat control/eradication. Held True. Volunteers engage where opportunities are available, though there is a limited pool of residents on Little Cayman to commit time to opportunities (e.g., cryptic reptile surveys). There is a majority support (~69% of all respondents) with 61% indicating that they strongly agree and 8% in moderate agreement with little opposition (15% total, but 11% of these respondents strongly oppose). Cat owners lean slightly to opposition and make up most of the total strong opposition (6 of 8 in total participants who answered that way) (annex 5.9).
- Assumption 10 Cayman Brac citizens engage in volunteer opportunities and are open to engaging with the project around feral cat management. Held true. Volunteers engaged in Green Iguana culls and existing DoE opportunities (e.g., seabird surveys). We were able to collect sufficient responses from Cayman Brac to provide comment on feral cat management.
- Assumption 11 & 17 RSPB able to replicate communications lessons from; previous successful and widely supported community based/public outreach project across the UK Overseas Territories (including Turks & Caicos Islands) and eradication/biosecurity projects in the UK <u>and</u> recent successful and widely supported feral cat eradications in the Turks & Caicos Islands. Held True. Lessons from other RSPB projects/staff, including in Anguilla and Turks and Caicos were bought up during quarterly project management meetings and helped inform messaging, such as that in the Brown Booby predator control film (annex 5.18), and communications content (annex 5.6).
- Assumption 12 & 15 Fieldwork is not rendered impossible through hurricanes or other natural phenomena. Held True. Field work was not impacted by extreme weather or hurricanes and was planned appropriately and adaptively managed where necessary.
- Assumption 13 Local community members continue to volunteer time and effort to support conservation work on endangered reptiles. We were unable to attract many volunteers to complete cryptic reptile activities from the Sister Islands. The pool of people on Little Cayman is very small (only c.160 residents) and on Cayman Brac there was not much up-take for the efforts despite attempts to attract local community members. We did manage to secure volunteers from Grand Cayman (annex 5.6).
- Assumption 14 DoA, DoE, Ports Authority adopt and implement management recommendations for Little Cayman and Cayman Brac. All agencies provided input and agreement, in principle, to the inter-island Biosecurity Plan (annex 5.1). Implementation of the plan will follow formal endorsement (via the National Conservation Council) in 2024 and we are optimistic for a positive outcome.
- Assumption 18 Animal rights organisations based on Grand Cayman (who are not directly involved on the Sister Islands) do not block project activities. Since the passing of the Alien Species Regulations 2022, there was considerable push back against the Cayman Islands Government both locally and overseas against the regulations. DoE coordinated a local communications campaign as a response and continued to respond to challenges as they arose. The issue eventually passed, but a local campaign group, Feline Friends, bought a legal challenge against the government and was granted leave on part three of the regulations. To date, no progress has been made in resolving this, but it has had little impact of any control efforts as these are not implemented as part of the Alien Species Regulations.
- Assumption 19 Projects partners continue to work in the spirit of the project proposal and partnership agreements, resolving challenges and differences through project meetings. Held true. Partners have engaged positively with one another throughout the project.

4 Contribution to Darwin Plus Programme Objectives

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

The project has delivered against *Target 6 (invasive alien species)* of the Kunming-Montreal Global Biodiversity targets and associated articles of the **Convention on Biological Diversity (CBD)** *Article 8(h) on alien species; Article 12 on research and training; Article 13 on public education and awareness.*

Action has been taken to reduce impacts of feral cats and rats on the native biodiversity of Cayman's Sister Islands. Results are evidenced via increased fledging success in the 2022/23

Brown Booby breeding season and an increased hatchling proportion and apparent population stabilisation of Sister Islands Rock Iguana on Little Cayman, together with increased transect sightings of native reptiles following localised rat and cat control (for Brown boobies) on Cayman Brac. Feral cat control will likely have impacts at the Booby Pond & Rookery which supports implementation of UK & Cayman responsibilities under the **RAMSAR** convention (& specifically *Resolution V.III.18 'Invasive Species & Wetlands'*).

The project has addressed actions in multiple habitat and species action plans identified in <u>Cayman islands National Biodiversity Action plan, 2009</u>. Most significantly, at least 12 separate actions identified in the <u>Sister Islands Rock Iguana Species action plan</u> via control of feral cats (SM1), registration of domestic cats (SM2), increasing capacity on Cayman Brac to implement control (SM3, SM7) continuing volunteer engagement (SM8), participation and engaging key stakeholders to improve inter-island biosecurity (A8), improved monitoring and control of Green Iguanas (RM2), improving knowledge/public awareness of project species impacts on native species (RM18, CP20, CP21) and planning for feral cat eradication (RM1, RM4).

The centrepiece of Cayman's environmental conservation legal framework, the **National Conservation Act 2013 (NCA)** has been supported by the passing of the Alien Species Regulations and progress towards developing a national biosecurity policy achieved via development of the inter-island Biosecurity Plan.

4.2 Gender Equality and Social Inclusion (GESI)

Please quantify the proportion of women on the Project Board ³ .	Ca.57% - 4 of the 7 regular members of project steering committee
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ⁴ .	80%. 4 of 5 partners: RSPB CEO, Directors of both DoE and UoA (Research and Innovation) and >50% DoA senior leadership team.

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	

³ 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.

⁴ 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. DPLUS128 Final Report 2024

The project was not designed specifically with the GESI scale in mind (given this is an addition to the final reports in 2024), but we feel that we have approached its implementation accordingly to the definition provided above for 'Sensitive', though this is less relevant in the design of this project. The community survey did not collect unnecessary data and the only demographic data collected was age and resident status in Cayman.

5 Monitoring and evaluation

M&E has been effective during the project. An M&E plan was developed and reviewed as required (**annex 5.20**) and a project progress and risk log updated during quarterly Project management meetings (**annex 5.21**). All project documents have been shared using a specific project SharePoint site which has aided collaborative working on shared documents.

We completed a mid-term review in October 2022. This provided valuable opportunity to review the timeline of the project and ensure we were on track. We were able to identify key issues ahead that needed resolution and we acted on these appropriately (**annex 5.22**)

An end of project review was held with partners in June 2024 (**annex 5.23**) and an independent review coordinated by an RSPB volunteer, external to the project, is being drafted with confidential feedback provided by project staff.

6 Lessons learnt

During the end project review session held in Cayman with partners in 2024 we focussed on what went well, what we could've done better and captured lessons learnt (**annex 5.23**).

- Recruitment and staff retention. The RSPB recruiting and seconding staff in-territory, though initially working well, soon became untenable. Existing salary structures within RSPB were not able to keep up with the increase in cost of living experienced in Cayman, indeed they were already high at start of project. We should acknowledge that seconding roles based on UK salaries and paying in GBP is not feasible especially as we experienced significant exchange rate fluctuations in 2022. Though we addressed this via NTCI taking on the Community Engagement Officer role and RSPB contracting a consultant to backfill the Biosecurity Officer responsibilities, the Cayman Islands have one of the highest costs of living globally, and so future projects (and Darwin) should be amenable to a significant proportion of project budgets being focused on staffing and aid staff retention in-territory.
- Feral cat control. Feral cat control, though a major success from this project, drew much focus and required significantly more staff time than expected. As noted in the report (annex 5.15) though the effort increased substantially, the catch rate dropped off by >85%, although this should be noted to be normal during a control process as populations are reduced and the most trappable individuals are rapidly removed. These efforts take a considerable amount of time to prep, implement and even recover from and little else can be achieved during this field work. Control has been effective, but DoE will review how regular these efforts need to be going forward as to ensure control of feral cats is efficient.
- Community attitudes and adaptive management. Our engagement with the Sister Islands community has taught us much more about the differing attitudes on each island and going forward it is necessary to treat each island separately. There is overwhelming support for control/eradication of IAVs on Little Cayman but less on Cayman Brac. That said, it is more supportive than we might have expected, and there is more common ground as to management of invasive species than we thought prior to project initiation. The demographics of each island differ vastly, and ways to engage need to be relevant for example the Cayman Brac community has a larger demographic that are not necessarily online/using social media, thus 'knocking on doors' is a more effective way to engage. We adaptively managed the project based on feedback from the community and made changes to project activities where we were able to. For example, we did not use rodenticide for rodent control and opted for snap traps instead due to community concerns. For this project, where we are dealing with a sensitive topic, responding effectively to community feedback is crucial and is

something the partnership is taking forward in DPLUS207 – using feedback from the community surveys to inform project design and communications/stakeholder engagement plans.

- **Cryptic reptile surveys.** We have identified that the standard reptile survey methods deployed to improve knowledge of cryptic reptiles are not especially effective. This is probably due to likely low population levels, the species' cryptic behaviour, and the topography of the islands, with many inaccessible terrestrial refugia. A greater, more prolonged effort is required (measured in months of staff time), and we may need to use novel methods. Regarding blind snakes, the project was designed to see if these snakes were present on Little Cayman, with very limited effort on Cayman Brac, but in recent years there have not been sightings on Cayman Brac where they are already known. In future, focus might be better placed on improving our understanding of /supporting this Critically Endangered species (as well as other cryptic reptiles like the dwarf boas and Galliwasp) rather than attempting to find new species on Little Cayman.
- Biosecurity plan/policy development. The inter-island biosecurity plan took longer to develop than we had first thought. This was in part due to delays in backfilling the Biosecurity Officer role but was mostly a result of stakeholder consultations taking a long time, often due to conflicting schedules and the reality that biosecurity was not always a top priority for stakeholders. In hindsight it was ambitious to aim to engage, audit, consulate with stakeholders and then develop and implement the plan and subsequently draft new biosecurity policy within the timeframe of this project.

7 Actions taken in response to Annual Report reviews

The following feedback was provided in AR3:

• The project refers to a 'legal block' in April 2022; are these challenges likely to arise again, and if so, does the project have a contingency plan in place?

This specific challenge to control operations is unlikely to occur again given it has now been settled by DoE/Feline Friends. The only other relevant challenge is the outstanding judicial review that has been bought forward by Feline Friends against CIG cabinet in which a stay on part 3 of the regulations (which refers to control) was granted. However, this does not have an impact on partners ability to implement control as control operations are not enabled by the Alien Species Regulations and thus the control can continue. Re: contingency, in the unlikely case that control is mandated to stop for whatever reason, partners would have to accept the issue. Partners could not implement control if legally mandated to stop.

• It is not clear whether any project staff outside of the RSPB have received Safeguarding training. Does the project have plans to address this over the coming year?

As with RSPB, mandatory training is required for all civil servants (**DoE**, **DoA**). The following training is completed by all civil servants: <u>https://csc.gov.ky/course/anti-bullying-harassment-and-discrimination/</u>. **NTCI** handbook outlines the expected behaviour of staff to mitigate against any incidents of harassment and abuse and outlines what actions should be taken should such an incident occurs. Staff have also received safeguarding training specifically the <u>Darkness to Light</u> that focuses on the education and prevention particularly of child sexual and other forms of abuse. **UoA** have a <u>safeguarding policy</u> which staff are expected to adhere to and staff involved in the project have completed research ethics, protected characteristics bias, inclusivity and health and safety training. RSPB promotes the <u>Safeguarding Support Hub</u> in all partner contracts and encourages partners to use these resources as required.

The project indicates that it is unlikely that it will be able to confirm that the population
of green iguanas has reached levels <5% for Little Cayman and Cayman Brac, because
of the relatively low number of individuals involved; it is not clear what the implications
will be beyond the lifetime of the project.

There are no major implications post project. This previous reported comment refers mostly to the reality that monitoring such a low number of individuals is impractical/not possible and the indicator is less appropriate. Partners have been and will continue to keep numbers of Green Iguanas as low as possible and continue to monitor the situation (<u>Output 4</u>).

8 Sustainability and Legacy

This project has established an effective local and international partnership. The partnership has grown during implementation with NTCI now a partner. Their commitment, along with other interritory partners, has enabled the development of the DPLUS207 project, which builds directly on the outputs of this project, not least the feasibility study for eradication of feral cats from Little Cayman. DPLUS207 will support implementation of the interisland Biosecurity Plan, including establishing a biosecurity surveillance program on Little Cayman, engaging volunteers, and residents to participate in biosecurity actions and increasing staff capacity on Little Cayman. Another project, DPSTR001, was directly informed by these projects learnings and will also address actions from the inter-island Biosecurity Plan such as recruiting a Biosecurity Officer on Grand Cayman, improving facilities and biosecurity legislation.

Both DoE and NTCI's presence on the Sister Islands is much increased (Alien Species Control Officer and, Community Engagement Officer on Cayman Brac) and will continue for at least another 3 years thanks to support from DPLUS207.

Control plans (Green Iguana, feral cat) established as part of this project will continue, and lessons learnt, alongside advice received from international expertise are well embedded within DoE staff. Relationships established between Robinson Holdsworth Conservation Trust, will continue with a good relationship between both international and in-territory partners. Indeed, RHCT aided the development of the DPLUS207 project.

Both the Alien Species Regulations (in place) and the Animals Act (in revision) will provide a good legal framework to improve biosecurity, outlasting the project.

The biodiversity benefits of this project are not insignificant and will be long lasting given control is continuing. Rock iguana hatchling numbers are much higher than in previous surveys on Little Cayman and on Cayman Brac Brown Booby fledging success give this fast-declining colony some hope for the future.

9 Darwin Plus Identity

All promotional materials related to the project have made use of Darwin's logo (**annex 5.6**). The project has been well publicised in-territory, mostly via the two main media outlets (<u>Cayman Compass</u>, <u>Cayman News Service</u>), referring to Darwin on multiple occasions (**annex 5.6**) and in DoE's Flicker (<u>issue #56, issue #54</u>).

The former Governor of Cayman Islands made two posts on Facebook about the project in 2022; Following a meeting in January with RSPB and DoE, <u>here</u>, and after a visit to Little Cayman with the Minister and Premier of Cayman Islands, <u>here</u>.

Darwin and the project have also been promoted at external events. In November 2022, RSPB/DoE project staff attended and presented the project at the <u>IUCN SSC Iguana Specialist</u> <u>Group</u> annual meeting in Dominica – this included specific reference to Darwin. The agenda and presentation are included in **annex 5.6**. The project team presented at the <u>2022 Virtual islands</u> <u>summit</u> and the Cayman Islands Government UK office hosted a <u>'biodiversity collage'</u> event in which this project, in particular the Brown Booby predator control, was referenced and used in the workshop. Both RSPB and DoE were in attendance.

A project <u>Facebook page</u>, and <u>FAQ document</u> were developed. The Facebook page has a good number of followers and receives good engagement. The majority of followers are based in Cayman.

An <u>introductory project film</u>, posted on Facebook, makes reference to and credits Darwin as does the Brown Booby predator control film (**annex 5.18**). A <u>short film</u> was compiled by a UoA volunteer who participated in the surveys in July 2023 and refers to Darwin Plus and the partnership.

10 Risk Management

Risks were well managed during all quarterly project coordination meetings. There have been no additional risks added in the last 12 months. A project progress and risk log (**annex 5.25**) was maintained and shared with all project partners via the project SharePoint.

11 Safeguarding

Further comments on safeguarding provided in section 7

Has your Safeguarding Policy been updated in the past 12	No			
months?				
Have any concerns been investigated in the past 12 months	No			
Does your project have a Safeguarding focal point?	Yes			
Has the focal point attended any formal training in the last 12	Yes, all RSPB staff			
months?	complete mandatory			
	annual Safeguarding			
	training			
What proportion (and number) of project staff have received	Past: 100% [10]			
formal training on Safeguarding?	Planned: 0% [0]			
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months?				
Please ensure no sensitive data is included within responses. No				
Please describe any community sensitisation that has taken place over the lifetime of the				
project; include topics covered and number of participants. N/A				
Have there been any concerns around Health, Safety and Security of your staff over the lifetime of the project? If yes, please outline how this was resolved. No				

12 Finance and administration

Below financial year amended to 2024/25 as project ended by in June 2024 not end 2023/24 financial year (March). We have not yet compiled the final figures between Q1 Apr - June 2024; however, we do not expect there to be any significant variances in project spend in any categories especially as a change request was submitted and approved in December 2023 thus the budget is very up to date. Financial information will follow the report shortly and we are track for the final project audit.

Project spend 2024/25 2024/25 Variance **Comments** (please (indicative) since last Grant Total explain significant % Annual Report (£) actual variances) Darwin Plus Costs (£) Staff costs No significant variance expected for any categories Consultancy costs **Overhead Costs** Travel and subsistence **Operating Costs** Capital items Others TOTAL 49390

12.1 Project expenditure

Staff employed (Name and position)	Cost (£)
Joe Jeffcoate, Species Recovery Officer (UK Overseas Territories) Project Lead, RSPB	
Wendy Cain, Senior International Finance Officer	
Alex Flores, Community Engagement Offic4461+417+6er, Sister Islands, NTCI	
Nick Ebanks, Alien Species Control Officer, DoE	
Dr Thomas Bodey, Research fellow, UoA	
TOTAL	23451

Consultancy – description and breakdown of costs	Other items – cost (£)
Biosecurity Officer consultant – production of interisland biosecurity plan	12765
TOTAL	12765

Capital items – description	Capital items – cost (£)
none	
TOTAL	

	Other items – description	Other items – cost (£)
none		
TOTAL		

12.2 Additional funds or in-kind contributions secured

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

Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project	Total (£)
DPSTR001 – Enabling effective biosecurity in the UK Overseas Territories. This funding buildings directly on from the DPLUS121 project and this project has played a crucial part in informing the design of DPSTR001	
DPLUS207 – builds directly on from this project	
TOTAL	3,171,538

12.3 Value for Money

We have been able to achieve our project outcome effectively despite there being a significant increase to cost of living globally, and felt particularly in the Cayman Islands - which is already a very expensive location to operate in. Increasing capacity on the project, the addition of the Alien Species Recovery Officer in particular, has enabled consistent and effective responses to Green Iguanas as well as being able to achieve the positive gains at the Brown Booby colony. Feral cat control has been achieved with significant match-funding by DoE, not only in staff time but in equipment and materials too. NTCI have also provided resources and staff time, in particular part funding the Community Engagement Officer post on Cayman Brac. Consultants involved in the project have enabled us to achieve our outputs efficiently and a robust procurement process took place. Robinson Holdsworth Conservation Trust have continued to support the partners with advice after their contract ended and provided a detailed feasibility assessment that will have long lasting impact for biodiversity in the Cayman Islands.

13 Other comments on progress not covered elsewhere

N/A

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

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

Predator control is being shown to be effective on Cayman's Sister Islands of Little Cayman and Cayman Brac. Since feral cat and rodent control began in 2022 there has been encouraging signs for both the Sister Islands Rock Iguana – an endemic Critically Endangered species – and the Brown Boobies on Cayman Brac – the colony of which has been in steep decline for many years.

Feral cats have been shown to predate in particular on the hatchling Sister Islands Rock Iguanas, and in 2019 the proportion of hatchling iguanas in the surveys was incredibly low, at just 4.5%. However, this has increased significantly to 26% in 2023 following more than a year of feral cat trapping effort. Continuing control is necessary, but there is hope that recruitment will improve due to a reduction in predation pressure.

Brown Booby nesting success improved following the initiation of feral cat and rodent control at key sites on the Brac. The Lighthouse Trail, high up on the bluff at the East end of the island saw a major improvement to nesting success, increasing from 12.5% in 2022 to 77.8% in 2023. Since control began, there has been no evidence of predation on chicks or adult birds and 100% of all chicks have fledged.

A short film about the predator control on Cayman Brac is provided (**annex 5.17**), and we will inform Darwin when this has been made public to be shared more widely.

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
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Video Annex 5.17 submitted with report	Brown Booby Predator Control, Cayman Brac	Cayman Islands Gov Department of Environment, National Trust of the Cayman Islands, Project Facebook page (see page 1), RSPB	Yes
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Annex 1 Report of progress and achievements against logframe for the life of the project

Project summary	Progress and achievements	
Impact The unique biodiversity of the Cayman Sister Islands can thrive in the absence of invasive predators, safeguarded from further detrimental introductions, and cherished by residents as a long-term community asset.	There's been significant positive impact on the native biodiversity in Cayman. Brown Boobies and Sister Islands Rock Iguana have responded well to predator contro and anecdotal evidence of a greater general abundance of other reptiles such as curly tails and geckos has been observed by both Sister Island's residents and project staff.	
	A framework and conversation have been initiated re: invasive species and improving biosecurity and will continue to be built upon supported by new Darwin Plus projects that used learnings from this project to inform their design.	
Outcome Locally led biosecurity and Invasive Alien Vertebrate (IAV) management in the Sister Islands is established and implemented effectively, via sustainably increased capacity, improved knowledge, and community engagement.		
Outcome indicator 0.1 Critically Endangered Sister Islands rock iguana population becomes stable on Little Cayman (currently declining with 2019 baseline of c.1,786 individuals); and becomes stable on Cayman Brac against a YR1 baseline (status currently unknown but suspected declining) by the end of the project.	Population increased significantly from low of 1,000 individuals in 2022 to 1,834 in 2023 and closer to 2019 baseline with significant increase to hatchling proportion- increasing from 4.5% in 2019 to 26% in 2023 (annex 5.19). 77% residents reported difference in abundance of wildlife, including rock iguanas, since feral cat controls began (annex 5.15).	
	Cayman Brac population still to be determined due to ecology knowledge gaps and challenges with survey methodology. A Darwin Plus Local project (<u>DPL00026</u>) attempted to satellite tag and track iguanas but was unsuccessful due to poor weather and technical challenges.	
Outcome indicator 0.2 Invasive green iguanas are no longer sighted on Little Cayman and detection rates on Cayman Brac are reduced by 50% against a YR1 baseline by the end of the project and incursions on both islands are effectively responded to during and beyond the project.	No decrease in Green iguana population detected, but enhanced control plan in place (annex 5.7) observed increase on Little Cayman but may well be a result of increased effort = increased sightings/captures. Similar in Cayman Brac, but there is a 20% increase to adult captures (annex 5.5), and this will hopefully reduce numbers overall in time.	
Outcome indicator 0.3 The invasive feral cat population on Little Cayman is reduced by at least 25% from YR1 baseline by the end of the project, and incursions are effectively responded to during and beyond the project.	Feral cat population estimated at <i>c</i> .200 individuals (<u>Output 3</u>) 176 feral cats have been removed across 7 efforts since June 22 – May 24. C.88% reduction in feral cat population. Sightings from community have helped inform DoE as to where efforts should be targeted (annex 5.11, 5.12).	

Outcome indicator 0.4 Annual breeding surveys of the brown booby colony on Cayman Brac show productivity increases by 25% by the end of the project as a result of effective targeted feral cat and rodent control.	Initial response to control efforts were positive with an increase to fledgling success from 12.5% to 78% (annex 5.17) in the 2022/23 breeding season	
Outcome indicator 0.5 Sister Islands Biosecurity Plan agreed by DoE/ DoA/Port Authority, adopted by Cayman Islands Government and under implementation by end of YR3 and thereafter.	Plan developed (annex 5.1) following considerable stakeholder consultation. Plan slated to be put forward to National Conservation Council in September 2024 for formal endorsement and actions being address with support of 2 new Darwin Plus projects (<u>Sustainability and legacy</u>).	
Outcome indicator 0.6 Scientific knowledge gaps filled for cryptic reptile species (blind snakes, boas) to monitor impact of IAV management and biosecurity and to inform Species Action Plans by end of project.	Knowledge gaps not filled, but survey methodology ruled out. Additional resources and effort required in future to better understand cryptics reptiles (<u>Output 3</u>).	
Outcome indicator 0.7 Drafted Invasive Species Regulations, including biosecurity policies, submitted to cabinet by the end of the project.	Alien species regulations submitted and gazetted in Nov 2022. (annex 5.24) Judicial review bought against cabinet but partnership collaborating to ensure regulations can stay in place.	
Output 1 Enhance capacity of in-Territory agencies (DoE/DoA/Port Authority) to plan	n, manage, implement and monitor biosecurity and IAV control	
Output indicator 1.1 Sister Islands biosecurity capacity increased within key local implementing agencies ((DoE/DoA/Port Authority) by Q3 Yr1 through recruitment of a Biosecurity Officer.	Biosecurity Officer recruited as an RSPB role seconded to DoE, subsequently backfilled as a biosecurity consultant.	
Output indicator 1.2 10 in-Territory staff develop and demonstrate improved skills in biosecurity and IAV control against YR1 baseline by end of project.	6 DoE staff have benefitted from learnings and experience from RSPB and Island eradication expertise Robinson Holdsworth Conservation Trust – incl. review of cat control operations (annex 5.2). All staff participated in at least 1 control effort. 4 NTCI project staff also benefited from learnings. Lessons shared with further 2 National Trust staff implementing similar control on Grand Cayman.	
Output indicator 1.3 At least one funding application submitted to Cayman Islands Government in YR3 by in-Territory partners to continue biosecurity/IAV control priorities beyond the end of the project.	Request submitted, but Alien Species Control Officer and Biosecurity Officer posts not funded by CIG. Posts are further supported by 2 new Darwin funded projects (Sustainability and legacy).	
Output indicator 1.4 Two policy documents (national biosecurity and Sister Islands domestic animals' policy) drafted and submitted to cabinet by the end of the project.	DoA are in the final stages of drafting for a revision to the 2015 Animals Act which is hoped to be passed before end 2024. Provisions for requirements to register and desex any new pets arriving on the Sister Islands included. National biosecurity policy not drafted given delays to drafting inter-island biosecurity policy, which would inform any policy.	

Output indicator 1.5 A Government approved, stakeholder led, Sister Islands Biosecurity Plan is jointly developed and approved by DoE/DoA/Port Authority for the Sister Islands in YR3 and implemented beyond the project.		
Output 2. Enhanced in-Territory community capacity to implement and monitor biose	ecurity and IAV control	
Output indicator 2.1 By end of project, at least 10 Sister Islands citizens volunteer their time and resources towards implementing both biosecurity measures and responding to incursion of IAVs rapidly and effectively.	26 volunteers involved in at least 1 Green Iguana night search, Cayman Brac. 34 members of Green Iguana WhatsApp group sighting responses, supported by Alien Species Control Officer. Volunteer night searches formally included in control plan (annex 5.7). Recommendations for biosecurity volunteers (annex 5.1) relate to surveillance and reporting sightings and can be implemented following endorsement of plan (<u>Output 1</u>).	
Output indicator 2.2 Capacity within key local implementing agencies (DoE) increased to deliver effective community engagement on Cayman Brac by Q3 Yr1 through recruitment of a part-time Community Engagement Officer.	RSPB part time position based on Cayman Brac (seconded to DoE) recruited, and eventually back-filled (following resignation) by first NTCI position based on the Sister Islands in its 35+ year history as a full-time post.	
Output indicator 2.3 Increased awareness against YR1 baseline within Cayman Brac community on (1) the importance of neutering pets and (2) the importance of not relocating feral cats to Little Cayman by the end of the project.	 (1) 46% support mandatory desexing, an increase of <i>c</i>.10% since 2022. (2) No responses across either survey indicated that the relocation of feral cats to Little Cayman was an acceptable means of managing unwanted pet cats. This issue, legally at least, is addressed via the Alien Species regulations which prohibit the abandonment of any alien species (see <u>Outcome</u>). Anecdotally we've received mixed responses to the extent of this issue. 	
Output indicator 2.4 At least 75% of Little Cayman's citizens (c.120 people) * and 25% of Cayman Brac's citizens (c.576 people) ** engaged during the project, with increased understanding against YR1 baseline of wildlife and responsible pet ownership in order to safeguard Sister Isle species.	465 (23%) residents on Cayman Brac and 142 (88%) on Little Cayman were engaged during community surveys. Further engagement achieved via volunteers at Green Iguana night searches (see above), and at various events on both islands. 219 followers based in the Cayman Islands on project Facebook page (annex 5.6).	
*Little Cayman = c.160, **Cayman Brac c.2003 from 2021 pop. census	On both islands, respondents indicated a fairly consistent knowledge of native species evidenced by ability to name at least 1 native species. A shift towards negative sentiment about their native species status – a more realistic assessment of the populations. 41% considered Sister Islands Rock Iguana to be <i>"doing well"</i> and 26% for the Brown Boobies in baseline. This fell to 18% for the iguanas and 15% for boobies.	
	Increase agreement to restricting cat's mobility (Cayman Brac 62% to 71%, Little Cayman 77% to 84%)	

Output indicator 2.5 50% of Little Cayman's citizens and 10% of Cayman Brac's citizens actively participated, learnt and value biosecurity in order to safeguard Sister Isle species.		
Output 3 The baseline presence of IAVs and nationally significant wildlife is bette conservation management and community engagement	r understood. Interactions and impacts of IAVs are determined and used to inform	
Output indicator 3.1 Rodent assessment completed at at least six priority rock iguana, seabird, and residential sites (that might be impacted by cat control) across the Sister Islands by end YR1.	Only Black Rats <i>Rattus rattus</i> appeared in surveys. Focus of monitoring has been on Little Cayman in relation to any potential impact to rodent population following feral cat control. A small, but not significant increase to repeat rodent survey observed from 2022 baseline. A spike in population in interior of island indicates Black Rats on Little Cayman appear to align with rodent populations on other islands and apparent increases related to seasonal changes and follows a boom-and-bust cycle (annex 5.10).	
Output indicator 3.2 Residency levels and distribution of feral cats are quantified on Little Cayman by end YR1.	Population estimated at <i>c</i> .200 feral cats using camera trap grids (annex 5.11) and spotlight searches (annex 5.12). Cats appear relatively widespread across the island but with higher densities through the main town centre at the West end, the landfill, and on the northeast coast.	
Output indicator 3.3 Presence/absence of Critically Endangered Cayman Brac blind snake determined via systematic spatial sampling using refugia on Little Cayman and Cayman Brac by the end of YR2. Surveys will involve local citizens, DoE staff and student researchers.	DoE and UoA, supported by 1MSc and 3 PhD students, completed 3 separate visits to conduct surveys using drift fencing and pitfall traps, line transects and refugia (annex 5.13). Only 2 instances of target species found across all surveys (Cayman Brac Boa <i>Tropidophis schwartzi</i>). No blind snakes found on Little Cayman, but only methods can be ruled out at this stage. Limited volunteer participation despite efforts to encourage engagement (annex 5.6).	
Output indicator 3.4 Detailed surveys of Sister Islands' Cayman dwarf boas with baseline population estimates and habitat preferences quantified by end YR2. Surveys will involve local citizens, DoE staff and student researchers.	As above	
Output indicator 3.5 Impacts of IAV's upon target species quantified by end of the project and a repeated questionnaire evaluation of local citizen participants (at start and end of project) demonstrates increased understanding of Sister Island species and the negative impacts of IAVs.	Necropsies of feral cats euthanised to establish species consumed. most frequent animal remains found in were birds (68%), rats (58%) and reptiles (39%). Sister Islands Rock Iguana remains were found in 9% of digesta of feral cats. 2 new species recorded using eDNA (Cayman Galliwasp <i>Comptus maculatus</i> an IUCN Critically Endangered species and White Crowned Pigeon <i>Patagioenas</i> <i>leucocephala</i>) (annex 5.14). Further evidence of predation observation on Cayman Brac annex 5.6.	

Output indicator 3.6 Species Conservation Plans developed for the two species/species groups of Sister Islands' cryptic reptiles by end of project.	Not developed given surveys turned up very few instances of target species (see above). A conservation plan for these species is still needed and is being drafted by DoE. Further work required for cryptic surveys methodology in future.	
Output 4. Reduced impact of IAVs on globally threatened Sister Islands species threatened	bugh effective management	
Output indicator 4.1 Feral cat management effectively planned and implemented by local partners on Little Cayman in YR1 with feasibility for eradication from Little Cayman determined by end YR2.	7 control efforts June 2022 to May 2024. 176 feral cats were removed (annex 5.15). Significant (88%) reduction in capture rate between June 2022 and Feb 2024 sessions despite the effort increasing substantially over time (<u>Lessons learnt</u>) Recommendations to improve feral cat control provided by RHCT (annex 5.2).	
	Robinson Holdsworth Conservation Trust, completed feasibility assessment for feral cat eradication and concluded it as feasible (annex 5.16)	
Output indicator 4.2 Feral cat management schedule and protocol approved on Cayman Brac & implemented by local partners in YR2.	Alien Species Control Officer recruited, feral cat (and rodent) control completed at 3 sites – main focus at Lighthouse trail significant fledgling success recorded 12.5% – 77.8% (annex 5.17). Control continues on Cayman Brac. Results summarised in short film premiered to Brac community (a nnex 5.16, 5.18)	
Output indicator 4.3 Enhanced control programme in place for invasive green iguanas, reducing estimated population to <5% for Little Cayman by the end of the project from existing annual baselines.	Enhanced control program defined and implemented (annex 5.7). Population may be increasing on Little Cayman, but any increase may be result of increased effort.	
Output indicator 4.4 Invasive green iguana eradication plan by local partners produced for Little Cayman and Cayman Brac by the end of the project.	Until the enhanced control programme has been implemented for a sufficient amount of time, planning for eradication on either island is not feasible. Population may be increasing on both islands, but more data needed.	
Output indicator 4.5 Rodent control programme established by local partners in at least six priority areas across the Sister Islands by end YR2.	at Rodent control implemented alongside feral cat control efforts at three sites on Cayman Brac – main focus at Lighthouse trail. Some rodent control completed alongside feral cat control but focus on Little Cayman has been feral cats given their impact on Sister Islands Rock Iguana.	
Output 5. Project managed and monitored effectively		
Output indicator 5.1 Project monitoring plan developed in first 3 months and reviewed twice per year.	Plan developed and reviewed as necessary (annex 5.20), SharePoint site established and utilised by partners effectively	
Output indicator 5.2 Regular communication maintained between the team; six monthly skype calls and annual visits and reports from managers	Quarterly project management meetings held (a nnex 5.12) to inform implementation. Annual meetings (in-territory) held throughout project.	

Output indicator 5.4 Technical and financial reporting to RSPB and Darwin accurate and on time and to high standard.	Effective information sharing between partners and to RSPB sufficient. All reports submitted on time to Darwin throughout project.

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Project summary	SMART Indicators	Means of verification	Important Assumptions
Impact: The unique biodiversity of cherished by residents as a long-		absence of invasive predators, safeguard	led from further detrimental introductions, and
Outcome: Locally led biosecurity and Invasive Alien Vertebrate (IAV) management in the Sister Islands is established and implemented effectively, via sustainably increased capacity, improved knowledge, and community engagement.	 0.1 Critically Endangered Sister Islands rock iguana population becomes stable on Little Cayman (currently declining with 2019 baseline of c. 1,786 individuals); and becomes stable on Cayman Brac against a YR1 baseline (status currently unknown but suspected declining) by the end of the project. 0.2 Invasive green iguanas are no longer sighted on Little Cayman and detection rates on Cayman Brac are reduced by 50% against a YR1 baseline by the end of the project and incursions on both islands are effectively responded to during and beyond the project. 0.3 The invasive feral cat population on Little Cayman is reduced by at least 25% from YR1 baseline by the end of the project, and incursions are effectively responded to during and beyond the project. 0.4 Annual breeding surveys of the brown booby colony on Cayman Brac show productivity increases by 25% by the end of the project as a result of effective targeted feral cat and rodent control. 	 0.1 Sister Islands rock iguana population assessment report for Year 1 and 3; Updated IUCN Conservation status assessment report for Sister Islands rock iguana; Iguana database for CI Government. 0.2 Annual technical reports, databases of green iguana control efforts on Little Cayman and Cayman Brac. 0.3 Annual technical reports, databases of feral cat control efforts on Little Cayman. 0.4 Annual seabird colony population reports, database of seabird counts. 0.5 Biosecurity Plan document for Little Cayman and Cayman Brac; MoU document between key implementing agencies, annual work plans and budgets. 0.6 Drafted peer review papers, updated IUCN Red List status assessments for endemic reptiles; technical reports from field visits, databases and maps showing survey results. Management plan updates for species and sites. 	Green iguanas and feral cats are present on both Sister Islands but the demographics and existing biological data for the two islands are very different: Little Cayman (82 ha; human population = 160) has robust data on iguanas, large seabird colonies with limited available data and strong community support for both green iguana and feral cat control/eradication. Cayman Brac (3,527 ha; human population = 2,003) has limited iguana data, good data on a declining seabird colony and variable community support for invasive species management, with strong support for green iguana control but currently limited support for feral cat control. The project has been designed to address the individual contexts of the two islands appropriately. IAV control and Biosecurity plans are properly implemented by management authorities. <i>We are confident this assumption will hold thanks to high level of competency and experience of project partners.</i> CI Government continue to see importance of biosecurity to CI's native wildlife and related industries and adopt Invasive Species regulations post project. <i>We are confident this assumption will hold true as this project has been developed in line with current priorities.</i> COVID-19 restrictions do not increase significantly to the point where it impacts the project teams' ability to complete project

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

	 0.5 Sister Islands Biosecurity Plan agreed by DoE/ DoA/Port Authority, adopted by Cayman Islands Government and under implementation by end of YR3 and thereafter. 0.6 Scientific knowledge gaps filled for cryptic reptile species (blind snakes, boas) to monitor impact of IAV management and biosecurity and to inform Species Action Plans by end of project. 0.7 Drafted Invasive Species Regulations, including biosecurity policies, submitted to cabinet by the end of the project. 	0.7 Drafted Invasive Species Regulation and policy documents, cabinet paper, minutes from cabinet meeting.	 activities. Given the skills and experience of the in-territory partners, we believe the project can be appropriately adapted in the scenario of further COVID-19 restrictions without impacting the project outcome, particularly as there is no current within-country virus transmission in the Caymans due to border controls. Biosecurity measures are not stalled by delays in Cabinet approval to proceed, given that biosecurity implementation requires a multi- agency approach. We believe this assumption will hold true as this project has been developed in line with current priorities but are aware of the risk given the upcoming election in May 2021.
Outputs: 1. Enhance capacity of in- Territory agencies (DoE/DoA/Port Authority) to plan, manage, implement and monitor biosecurity and IAV control	 1.1 Sister Islands biosecurity capacity increased within key local implementing agencies ((DoE/DoA/Port Authority) by Q3 Yr1 through recruitment of a Biosecurity Officer. 1.2 10 in-Territory staff develop and demonstrate improved skills in biosecurity and IAV control against YR1 baseline by end of project. 1.3 At least one funding application submitted to Cayman Islands Government in YR3 by in-Territory partners to continue biosecurity/IAV control priorities beyond the end of the project. 1.4 Two policy documents (national biosecurity and Sister Islands domestic animals' policy) drafted and submitted to cabinet by the end of the project. 	 Staff work plans, biosecurity officer signed contract. Project team feedback forms on fieldwork; Team leaders/line managers assessment and annual appraisals Departmental plans/funding applications for future work. Policy documents, cabinet paper Plan document(s), database; MOU/statement of ongoing collaboration to maintain biosecurity DoE/DoA/Ports Authority 	 Team members are always available for fieldwork and willing to learn new techniques. We believe this assumption will hold true based on meetings held with project partners and stakeholders during the project development. Staff retention and progression allows them to implement and share skills. We believe this will hold true as recruited staff will be supported by experienced local staff and the location is a highly desirable place to work / be based. CI Government continue to see importance of biosecurity to CI's native wildlife and related industries and adopt Invasive Species regulations post project. We are confident this assumption will hold true as this project has been developed in line with current priorities.

	1.5 A Government approved, stakeholder		
	It's A Government approved, stateholder led, Sister Islands Biosecurity Plan is jointly developed and approved by DoE/DoA/Port Authority for the Sister Islands in YR3 and implemented beyond the project.		
 Enhance in-Territory community capacity to implement and monitor biosecurity and IAV control 	 2.1 By end of project, at least 10 Sister Islands citizens volunteer their time and resources towards implementing both biosecurity measures and responding to incursion of IAVs rapidly and effectively. 2.2 Capacity within key local implementing agencies (DoE) increased to deliver effective community engagement on Cayman Brac by Q3 Yr1 through recruitment of a part-time Community Engagement Officer. 2.3 Increased awareness against YR1 baseline within Cayman Brac community on (1) the importance of neutering pets and (2) the importance of not relocating feral cats to Little Cayman by the end of the project. 2.4 At least 75% of Little Cayman's citizens (c.120 people) and 25% of Cayman Brac's citizens (c.576 people) engaged during the project, with increased understanding against YR1 baseline of wildlife and responsible pet ownership in order to safeguard Sister Isle species. 2.5 50% of Little Cayman's citizens and 10% of Cayman Brac's citizens 	 2.1 'Volunteer role descriptions' document; 'Biosecurity and incursion response' training materials; volunteer agreements signed; photographs of volunteer days and rapid response kits, database of IAV sightings and incursion response activities. 2.2 Community Engagement Officer signed contract, work plans. 2.3 Communications plan, publicity materials, completed repeated questionnaires (designed to capture gender disaggregated data), end of project awareness survey report. 2.4 Communications plan, publicity materials, feedback forms (designed to capture gender disaggregated data), end of project awareness survey report. 2.5 Activity Plan, community workshops (photographs, feedback forms), completed repeated questionnaires (designed to capture gender disaggregated data), technical report on community surveys. 	Local community members continue to volunteer to support conservation efforts on Little Cayman. We believe this will hold true based on the current volunteer system and community support in place for responding to invasive green iguana sightings. Based on previous DoE community engagement efforts (community meetings), >95% of the community are supportive of feral cat control/eradication. Letters have also been sent from Little Cayman community requesting Government action on feral cat management. Cayman Brac citizens engage in volunteer opportunities and are open to engaging with the project around feral cat management. We believe this will hold true based on the current volunteer system and community support in place for responding to invasive green iguana sightings. The project team are also experienced in effective community engagement on previous eradication projects. RSPB able to replicate communications lessons from previous successful and widely supported community based/public outreach project across the UK Overseas Territories (including Turks & Caicos Islands) and eradication/biosecurity projects in the UK.

		actively participated, learnt and value biosecurity in order to safeguard Sister Isle species.		
3	The baseline presence of IAVs and nationally significant wildlife is better understood. Interactions and impacts of IAVs are determined and used to inform conservation management and community engagement.	 3.1 Rodent assessment completed at at least six priority rock iguana, seabird and residential sites (that might be impacted by cat control) across the Sister Islands by end YR1. 3.2 Residency levels and distribution of feral cats are quantified on Little Cayman by end YR1. 3.3 Presence/absence of Critically Endangered Cayman Brac blind snake determined via systematic spatial sampling using refugia on Little Cayman and Cayman Brac by the end of YR2. Surveys will involve local citizens, DoE staff and student researchers. 3.4 Detailed surveys of Sister Islands' Cayman dwarf boas with baseline population estimates and habitat preferences quantified by end YR2. Surveys will involve local citizens, DoE staff and student researchers. 3.5 Impacts of IAV's upon target species quantified by end of the project and a repeated questionnaire evaluation of local citizen participants (at start and end of project) demonstrates increased understanding of Sister Island species and the negative impacts of IAVs. 	 3.1 Technical rodent assessment report outlining recommendations and protocols, database of rodent presence/absence results. 3.2 Technical report outlining control recommendations, maps showing feral cat density, database of feral cat distribution. 3.3 Technical report on presence/absence of blind snakes, fieldwork reports and photographs of training/activities, database of recordings, photographs of community participation, feedback evaluation forms for community participants. 3.4 Technical report on presence/absence of boas, fieldwork reports and photographs of training/activities, database of recordings, photographs of community participation, feedback evaluation forms for community participants. 3.5 Technical report of impacts of IAVs upon Sister Islands species, completed questionnaires, evaluation report of citizen participation and understanding of IAV's impacts on species. 3.6 Species Conservation Plan documents (legal document), recommendations for management plans 	Fieldwork is not rendered impossible through hurricanes or other natural phenomena. We plan to mitigate this as much as possible through planning fieldwork schedules so that the vast majority of work occurs outside of hurricane season. Local community members continue to volunteer time and effort to support conservation work on endangered reptiles. We believe this will hold true based on the current voluntary community action taking in response to native rock and invasive green iguanas.

4	Reduced impact of IAVs on globally threatened Sister Islands species through effective management.	 3.6 Species Conservation Plans developed for the two species/species groups of Sister Islands' cryptic reptiles by end of project. 4.1 Feral cat management effectively planned and implemented by local partners on Little Cayman in YR1 with feasibility for eradication from Little Cayman determined by end YR2. 4.2 Feral cat management schedule and protocol approved on Cayman Brac & implemented by local partners in YR2. 4.3 Enhanced control programme in place for invasive green iguanas, reducing estimated population to <5% for Little Cayman by the end of the project from existing annual baselines. 4.4 Invasive green iguana eradication plan by local partners produced for Little Cayman and Cayman Brac by the end of the project. 4.5 Rodent control programme established by local partners in at 	 4.1 Control protocol document for Little Cayman, trapping schedule document/field officer logbooks, eradication feasibility study document, DoE/DoA approval letters for cat trapping, annual work plan, database of feral cat trapping effort, quarterly reports. 4.2 Control protocol document for Cayman Brac, trapping schedule document, DoE/DoA approval letters for cat trapping, annual work plan, field officer logbooks, database of feral cat trapping effort, quarterly reports. 4.3 Green iguana control programme plan document, database of green iguana control efforts. 4.4 Green iguana eradication plan document(s). 	IAV control and Biosecurity plans are properly implemented by management authorities – i.e., local technical capacity is not lost. We believe this assumption will hold true based on meetings held with project partners & stakeholders during the project development. DoA, DoE, Ports Authority adopt and implement management recommendations for Little Cayman and Cayman Brac. We believe this assumption will hold true based on meetings held with project partners & stakeholders during the project development. Fieldwork is not rendered impossible through hurricanes or other natural phenomena. Little Cayman community remain supportive and committed to feral cat control/eradication. We believe this will hold true based on previous DoE community engagement efforts (community meetings) indicating that >95% of the community and partners of feral cat
		the end of the project.		previous DoE community engagement efforts
				RSPB able to replicate communications lessons from recent successful and widely supported feral cat eradications in the Turks & Caicos Islands.
				Animal rights organisations based on Grand Cayman (who are not directly involved on the Sister Islands) do not block project activities. We believe this will prove to be the case through a current Cayman Govt legal process,

			bolstered by community and stakeholder support for the feral cat control/eradication on Little Cayman. On Cayman Brac the project is designed to ensure effective engagement with the community in YR1 and will only focus on priority sites with the most vulnerable flagship species (e.g., booby colony).
5 Project managed and monitored effectively	 5.1 Project monitoring plan developed in first 3 months and reviewed twice per year. 5.2 Regular communication maintained between the team; six monthly skype calls and annual visits and reports from managers 5.3 Annual face to face project meetings take action to address any challenges and maintain engagement of senior managers within project partners 5.4 Technical and financial reporting to RSPB and Darwin accurate and on time and to high standard. 	 5.1 Monitoring plan and updates. 5.2 Team meeting minutes and project manager's reports. 5.3 Project meeting action points completed, attendance list for annual meetings. 5.4 Technical and financial reports and approval notes from Darwin. 	Projects partners continue to work in the spirit of the project proposal and partnership agreements, resolving challenges and differences through project meetings. We believe this will hold true due to the level of commitment of local partners into the project development. The project took over 2 years of development between RSPB and DoE and involved eight weekly project partner development meetings for stage 1 and six project partner development meetings for the stage 2 proposal.
1.1 Project partners provide ong of the following areas: monitor	oring (native wildlife and IAVs), ongoing survei	to undertake the tasks needed for success illance, minimising the risk of introducing I	d monitor biosecurity and IAV control sful implementation of biosecurity plans in each AVs through the transport of goods and people,
 1.2 Recruit an experienced Bios development support and pro 1.3 Produce biosecurity training 1.4 Develop a biosecurity trainining 1.5 Biosecurity signage develope 1.6 Complete a biosecurity audit 1.7 Repeat biosecurity audit again 	materials and resources by end YR1. g programme and schedule by integrating into ed and installed in key areas on Little Cayman with project staff and ley implementing agence inst a checklist with project staff and key imple ing workshop with key implementing agencies	oE by end December 2021 for 2 years to o existing staff induction/training programm and Cayman Brac by end YR2. ies in YR1 to determine baseline biosecur ementing agencies at the end of YR3.	les by end YR2.

- 1.9 Implement biosecurity on Little Cayman and Cayman Brac through increased monitoring and deliver incursion responses, and building inter-agency collaboration throughout the project, to any detection of IAVs (i.e., green iguanas, feral cats/dogs).
- 1.10 Facilitate a cabinet level meeting in YR3 with key stakeholders to establish a plan for building human resources for biosecurity within key partners by demonstrating the value of the Biosecurity Officer role, resulting in a new post request to Cayman Islands Government.
- 1.11 In YR3 and beyond the project, biosecurity training led by key DoE/DoA staff.
- 1.12 Draft domestic animals' Regulations for Little Cayman under the 'Animals law' (DoA) that ensures all new domestic cats arriving in the Little Cayman are neutered and microchipped by mid-YR3.
- 1.13 Draft a national Biosecurity Policy by the end of the project.
- 1.14 Write a draft cabinet paper for feedback on the drafted Little Cayman domestic animals' Regulations and national Biosecurity Policy by the end of the project.

Output 2: Enhance in-Territory community capacity to implement and monitor biosecurity and IAV control

- 2.1 Recruit a p/t Community Engagement Officer in YR1 Q2 to be seconded to DoE by end December 2021 for 2 years to coordinate volunteer programme, training, staff development support and project delivery.
- 2.2 In YR1 hold project launch community events on Little Cayman and Cayman Brac.
- 2.3 Targeted ongoing outreach/communication on Cayman Brac to collect information on the opinions & values of the community around feral cat management, with the aim to increase awareness on (1) importance of neutering pets and (2) importance of not relocating feral cats to Little Cayman by the end of the project.
- 2.4 Complete a baseline questionnaire with community members in YR1 to determine baseline understanding of wildlife and responsible pet ownership.
- 2.5 Repeat questionnaire with community members (end of project awareness survey) on understanding of wildlife and responsible pet ownership by the end of YR3.
- 2.6 Produce volunteer training materials and resources/publicity materials and project communication plan by end YR1.
- 2.7 Develop a volunteer work programme and schedule by end YR1.
- 2.8 Recruit at least 10 biosecurity volunteers by the end of the project.
- 2.9 Expand the invasive green iguana response network through training a volunteer 'rapid response' team by the end of YR2.
- 2.10 Complete ad-hoc feedback forms at meetings/workshops/events to monitor and evaluate community participation (including gender disaggregated data).

Output 3: The baseline presence of IAVs and their impact on nationally significant wildlife is better understood and used to inform conservation management and community engagement.

- 3.1 Complete survey of rodents in sites of conservation importance on Little Cayman and Cayman Brac in YR1, using a variety of detection methods to establish residency/activity levels.
- 3.2 Survey of feral cat population on Little Cayman in YR1, using a variety of detection methods (including motion cameras), establish residency/activity levels.
- 3.3 Complete presence/absence surveys for Cayman Brac blind snake *Cubatyphlops epactias* on Little Cayman and Cayman Brac by end YR1.
- 3.4 Complete detailed surveys for Cayman ground boas (Tropidophis parkeri on Little Cayman, and Tropidophis schwartzi on Cayman Brac) by end YR2.
- 3.5 Complete annual population survey of Sister Isles rock iguanas on Little Cayman and Cayman Brac. [co-funding]
- 3.6 Complete annual breeding surveys of brown booby colony on Cayman Brac. [co-funding]
- 3.7 Analyse data to assess impacts of IAV's upon target species (reptiles and seabirds) by end of the project
- 3.8 Complete Species Conservation Plans for the species above by the end of the project.

3.9 Update IUCN Red List Assessments for Sister Isles' boas by the end of the project.

3.10 Draft at least one peered review paper on the interactions between IAV's and native species (reptiles and seabirds) by end of the project

Output 4: Reduced impact of IAVs on globally threatened Sister Isles species through effective management.

4.1 Determine and implement an appropriate trapping schedule for a targeted feral cat control programme around priority sites on Little Cayman in YR1.

4.2 Complete a feasibility study for the eradication of feral cats from Little Cayman in YR2.

4.3 Determine and implement an appropriate trapping schedule for a targeted feral cat control programme around priority sites on Cayman Brac in YR2.

4.4 Develop and implement a rodent control programme in priority areas (identified in Action 3.6), building into Action Plan for Little Cayman by YR2.

4.5 Develop and implement a rodent control programme in priority areas (identified in Action 3.6) building into Action Plan for Cayman Brac by YR2.

4.6 Develop a plan for invasive green iguana eradication within Action Plan for Little Cayman in YR2.

4.7 Develop a plan for invasive green iguana eradication within Action Plan for Cayman Brac in YR2.

4.8 Enhance green iguana control on Little Cayman and Cayman Brac (with aim for future eradication) from YR2.

Output 5: Project managed and monitored effectively

5.1 In YR1 Q1 develop and agree project monitoring plan and use it as a project management tool to monitor implementation progress.

5.2 Quarterly conference call for core project team to update on progress and plan forthcoming work schedule

5.3 Six monthly internal (project team) technical and financial reporting to RSPB

5.4 3x annual meeting of project team and management in Grand Cayman for planning and sharing of data between all project partners from subsequent years.

5.5 Mid-term evaluation with project team in YR2.

5.6 Final project evaluation with external consultant in YR3 Q4.

Annex 3 Standard Indicators

Table 1Project Standard Indicators n/a – project developed prior to standard indicators (Round 9)

DPLUS Indicator number	Name of indicator	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total achieved	Total planned
E.g., DPLUS-A01	E.g., Number of people in eligible countries who have completed structured and relevant training	People	Men	20	10	50	60	80
E.g., DPLUS-A01	E.g., Number of people in eligible countries who have completed structured and relevant training	People	Women	30	0	10	30	40
E.g., DPLUS-B01	E.g., Number of new or improved habitat management plans available and endorsed	Number	New	1	0	1	2	2
E.g., DPLUS-B01	E.g., Number of new or improved habitat management plans available and endorsed	Number	Improved	1	0	2	3	3

Table 2 Publications

Title	Type (e.g., journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g., weblink or publisher if not available online)	

Annex 5 Supplementary material (optional but encouraged as evidence of project achievement)

- 5.1 Inter-island biosecurity pathway prevention plan
- 5.2 Expert review of feral cat control
- 5.3 Biosecurity audit summary
- 5.4 Biosecurity stakeholder recommendations summary
- 5.5 Green Iguana cull data
- 5.6 Supporting images and Darwin references
- 5.7 Green Iguana Control Plan
- 5.8 Baseline Community survey report 2022
- 5.9 Community Survey report 2024
- 5.10 Little Cayman rodent index report
- 5.11 Feral cat population assessment camera traps
- 5.12 Feral cat spotlight survey
- 5.13 Cryptic reptile survey trip reports
- 5.14 Wildlife impacts and health of feral cat's evidence report 2024
- 5.15 Feral cat controls report
- 5.16 Feral cat eradication feasibility report
- 5.17 Brown Booby predator control report
- 5.18 Predator control film
- 5.19 SIRI population estimate 2024
- 5.20 M&E plan
- 5.21 Quarterly PM meeting minutes
- 5.22 Mid-term review report
- 5.23 End of project review summary / lessons learned
- 5.24 Alien species regulations
- 5.25 Project risk register

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?	X
Is the report less than 10MB? If so, please email to <u>BCF-Reports@niras.com</u> putting the project number in the Subject line.	Х
Is your report more than 10MB? If so, please discuss with <u>BCF-Reports@niras.com</u> about the best way to deliver the report, putting the project number in the Subject line. All supporting material should be submitted in a way that can be accessed and downloaded as one complete package.	
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 14)?	Х
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.	Х
Have you involved your partners in preparation of the report and named the main contributors	Х
Have you completed the Project Expenditure table fully?	
Do not include claim forms or other communications with this report.	