
DPR13PS\1051

Evaluating the conservation needs of Cayman's critically endangered Amazon parrots

This project will evaluate the conservation needs of the Cayman Island's National birds; *Amazona leucocephala caymanensis* and *Amazona leucocephala hesternus*, through investigation of population genetic diversity, effective population size, and the assessment of threats and population recovery. Non-invasive sampling paired with genomics will be used to evaluate potential impact of inbreeding depression, assessing genetic health, and, given the current high levels of threat, including habitat loss, making predictions on future population viability for both parrot subspecies in the Cayman Islands.

CONTACT DETAILS

Title	Miss
Name	Jane
Surname	Haakonsson
Organisation	Cayman Islands Department of Environment
Website (Work)	https://doe.ky
Tel (Work)	+ [REDACTED]
Email (Work)	[REDACTED]
Address	[REDACTED]

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Section 1 - Contact Details

CONTACT DETAILS

Title	Miss
Name	Jane
Surname	Haakonsson
Organisation	Cayman Islands Department of Environment
Website (Work)	https://doe.ky
Tel (Work)	
Email (Work)	
Address	

GMS ORGANISATION

Type	Organisation
Name	Cayman Islands Department of Environment
Phone (Work)	
Email (Work)	
Website (Work)	
Address	

Section 2 - Title, Dates & Budget Summary

Q3. Title

Evaluating the conservation needs of Cayman’s critically endangered Amazon parrots

Please attach a cover letter as a PDF document.

Q4a. Is this a resubmission of a previously unsuccessful application to Darwin Plus Fellowships, as this scheme was previously called?

☒ No

Q5. Project beneficiary/group of beneficiaries

☒ Individual

Provide the name and official address of proposed Darwin Plus People & Skills beneficiary

Name	Jane Haakonsson
Address	<div></div>
Email	<div></div>

Q6. Summary of proposed project

This project will evaluate the conservation needs of the Cayman Island's National birds; *Amazona leucocephala caymanensis* and *Amazona leucocephala hesternus*, through investigation of population genetic diversity, effective population size, and the assessment of threats and population recovery. Non-invasive sampling paired with genomics will be used to evaluate potential impact of inbreeding depression, assessing genetic health, and, given the current high levels of threat, including habitat loss, making predictions on future population viability for both parrot subspecies in the Cayman Islands.

Q7. UKOT involved

Q7a. Please state which UKOT(s) will be involved with the project?

☒ Cayman Islands

*** if you have indicated a territory group with an asterisk, please give detail on which territories you are working on here:**


No Response


Q7b. Have you included a letter of support from the relevant OT Government(s) and/or OT-based civil society organisation?


☒ Yes

Please provide a combined PDF of all letters of support

 [People&Skills Support Letters combined](#)

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Q8. Project dates

Start date:

01 September 2025

End date:

31 August 2027

Duration (e.g. 1 year, 2 months):


24 months


Q9. Budget summary


	2025/2026	2026/27	2027/2028	Total
Darwin Plus funding request (1 Apr - 31 Mar)	51,612.00	30,312	7,000.00	£ 88,924.00

Please complete the template below which provides the Budget for this application.

 [BCF Budget under 100K MASTER Apr24](#)

 23/09/2024

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Section 3 - Principals

Q10. Principals in the project

Please give the details of the individuals from the Lead Organisation (and other organisations if relevant) who would be directly involved in supervising/ working with the beneficiary/ies.

Details	Project Leader	Other Expert	Other Expert	Other Expert
Surname	Haakonsson	Groombridge	Soanes	<i>No Response</i>
Forename(s)	Jane	Jim	Louise	<i>No Response</i>
Post held	Research Officer II	Professor of Biodiversity Conservation	Senior Conservation Scientist	<i>No Response</i>
Organisation	DoE, Cayman Islands Government	DICE, University of Kent	Royal Society for the Protection of Birds	<i>No Response</i>

Email


No
Response


Do you require more fields?


☒ No

Please provide a combined 1-page CV for each of these named individuals and remember to include the beneficiary/ies CVs as part of the PDF.

 [CV's combined](#)

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Section 4 - Aims, Activities & Achievements

Q11. Describe briefly the aims, activities and achievements of the employing organisation(s) of the proposed beneficiary/ies.

The Department of Environment (DoE) undertakes activities that fall within the broad categories of environmental management recommendations; sustainable development and environmental policy advice; environmental research, monitoring and assessment; marine protection services; public education and permitting services.

Customers and Location of Activities

The DoE provides services and advice to the general public, the development community and all government entities including the National Conservation Council, Central Planning Authority, the Development Control Board and Cabinet. The department also collaborates with regional and international environmental agencies e.g. FCDO, DEFRA, JNCC, UNEP as well as academic institutions.

Terrestrial Resources Unit remit:

- Establishing and managing terrestrial protected areas
- Protection of native flora and fauna
- Developing and implementing Species Conservation Plans
- Monitoring and research on priority species and habitats
- Implementation of the National Conservation Act
- Partnering with visiting scientists, local and international institutions, and volunteers

Q12. Describe briefly the current role/s of the proposed beneficiary/ies within their organisation(s) and what relevance this has to one or more of the main themes of Darwin Plus.

Over the past 15 years, as part of her role with the DoE, Ms. Haakonsson has spearheaded major conservation efforts to safeguard Cayman Parrots. This includes the implementation of the Parrot Amnesty in 2018-19, during which over 320 captive birds were health screened, banded, and microchipped, while owners were educated on appropriate husbandry protocols. She also fostered collaborations that led to the creation of the Cayman Parrot Sanctuary that has rehabilitated and released more than 40 parrots, embodying a model of biodiversity conservation that integrates scientific research, public education, and rehabilitation.

Recognizing that further research is crucial to safeguarding the future of Cayman's parrots, the DoE seeks to

address critical knowledge gaps related to the taxonomy and genetics of the two subspecies. This need for deeper understanding has driven Ms. Haakonsson's desire to develop this proposal with DICE and the RSPB that will integrate cutting-edge research with local and international expertise. This collaboration will enhance the conservation of the Cayman Parrot as well as build local research capacity.

Conserving native species, like the Cayman Parrot, is key to fighting climate change by maintaining both species and wider ecosystem resilience.

Section 5 - Outcomes & Objectives

Q13. Provide a concept note for the project. This should include:

Q13a. A clear outline of the aim and objectives of the project.

This project aims to build vital capacity for applied conservation genetics in the Cayman Islands and will form the basis for the lead's Biodiversity Management Masters-by-Research at DICE (University of Kent).

The lead will evaluate the conservation needs of the critically endangered subspecies of Cayman Parrots, the National Bird of this Overseas Territory, through the investigation of evolutionary distinctiveness between island taxa, and genetic relatedness and health of their populations coupled with investigations of current and future environmental threats.

This will be achieved by:

- Defining the boundaries of genetic distinctiveness of the Cayman Islands Parrot subspecies and identifying conservation management units through building on the analysis performed by Russello et al. (2010), by sequencing the whole genomes of sampled individuals from the different populations/subspecies of Cayman parrots. This genomic analysis will provide a more powerful insight into population history, differentiation and predictions of population viability, in order to guide future conservation management:
 - (1) Quantify genomic diversity within and between the different populations.
 - (2) Apply a genome-wide analysis to estimate the recent bottlenecks experienced by the different island populations.
 - (3) Estimate effective population size and levels of modern and historical gene flow between the two island populations/subspecies.
 - (4) Use the genomic data to estimate the genetic load of the different island populations, and to forecast population viability.
- Informing conservation management of the Cayman Parrot populations by identifying effective strategies for long-term health of both populations by adding genetic and population viability context to long-term demographic data.

The project will provide vital information necessary for long-term conservation management, for example, by answering key questions such as "how many breeding pairs are needed in both wild populations for optimal resiliency?", "what drives population bottleneck events?", "does significant inbreeding currently occur?", and "does hybridisation with escaped non-native parrots occur?".

Q13b. The role of the Project Leader, Lead Organisation and the beneficiary/ies, and others where relevant.

The Lead (Ms. Haakonsson) will be responsible for all deliverables, data and sample collection and the ultimate completion of the MRes at DICE, University of Kent. The DoE will provide in-country support through the provision of staff time, logistics, research laboratory and administrative project support.

DICE's Biodiversity Management research masters (MRes) program is focused on applied conservation research to improve conservation management. One of DICE's long-standing key areas of research and expertise, amongst other topics, focuses on genetic studies to support on-the-ground recovery programmes aiming to restore

threatened species. Alongside this, DICEs broader focus on using ecological approaches to maintain biodiversity and improving conservation practices, will ensure Ms Haakonsson benefits from a nurturing environment amongst a strong and diverse postgraduate student conservation community.

Prof Jim Groombridge, Professor of Biodiversity Conservation and MSc program convenor for the MSc Conservation Science programme will supervise Ms Haakonsson and host her in the DICE Conservation Genetics Research laboratory, where she will receive training in molecular techniques and analyses of genetic data. Prof Groombridge has over 20 years expertise in conservation genetics of endangered species, including rare parrots and other island birds, and has also led five previous Darwin Initiative projects in Mauritius, Seychelles, Madagascar and Kenya.

The RSPB (Dr Soanes) will provide logistical support, institutional support for sample/data acquisition from international/regional zoo partners alongside additional guidance on data analyses, guaranteeing this project a strong entry velocity. Dr Soanes has more than 13 years of experience in managing and coordinating Darwin-funded projects so will also provide support in terms of project oversight and reporting.

Q13c. Where appropriate, how the project will contribute towards one or more of the four themes of Darwin Plus in the OTs i.e. what the expected outcome of the project will be

- Biodiversity:

This project aims not only to conserve biodiversity but to recognise it by clarifying the unique taxonomic value of the Cayman Parrot subspecies. Understanding population genetics is crucial for conserving endemic island species because it provides insights into genetic diversity, vital for species' adaptability and long-term survival. Island populations are often small and isolated, making them more vulnerable to genetic drift, inbreeding, and loss of diversity. This can reduce species' ability to adapt to environmental changes, diseases, or new threats, increasing their risk of extinction. For Cayman parrots, the world's most range restricted parrots, the proposed genetic studies will clarify questions on whether the subspecies can be considered distinct species, ensuring conservation efforts are targeted appropriately and that efforts maintain or enhance genetic health and resilience.

- Climate change:

Increased storm activity, both in terms of frequency and strength of such events, is apparent throughout the Caribbean. Prior to storm events, the community prepares by removing dead and old trees to limit property damage, however, precious parrot nesting resources are often removed simultaneously. Strong storms appear earlier and earlier, colliding with the vulnerable nesting and fledging stages, thus significantly decreasing reproductive success of each season. DoE has long-term parrot population data, revealing impacts of hurricanes, however, understanding past bottleneck events, recovery periods and effective population sizes from genomic data will greatly inform strategies to increase the resiliency of these unique populations to climate change.

- Capability and capacity building:

In the Cayman Islands, national agencies already recognize the importance of applied genetics in managing and conserving endemic species, as seen in the Blue Iguana conservation efforts. By focusing on other iconic Cayman species, this project will further strengthen the DoE's capacity to integrate genetic insights into conservation action planning and will facilitate knowledge sharing via the project lead.

Section 6 - Legacy & Collaboration

Q14. Legacy

Provide information on how the beneficiary/ies will utilise, promote and disseminate the benefits of the project. Will a strategy be developed during the project to ensure this is achieved?

Upon completion of this project, Ms Haakonsson will (i) share the findings of her research locally through departmental meetings, a public lecture and an Action Planning Workshop and (ii) share findings regionally through the BirdsCaribbean network, which has an established Parrot Working Group (chaired by Ms

Haakonsson) reaching all Caribbean islands with extant populations of the Amazona complex and (iii) directly integrate the results into local management strategies via her direct affiliation with the Cayman DoE, and (iv) publish at least one peer-reviewed scientific journal reporting on the results of this study.

Cayman's parrots are highly visible and accessible to local islanders, who may not consider these endemic birds as particularly rare or under threat of extinction due to recent inbreeding. The proposed genetic and demographic work will help shed light on this hidden vulnerability. A public lecture on conservation genetics will be delivered as will a series of public outreach measures in local communities across the islands, to galvanise awareness and support for future conservation efforts and to allow Cayman communities to share in impactful science of their biodiversity.

Q15. Priorities

How will the project assist the OT's environmental priorities? Please refer to international or national environmental conventions, treaties, agreements, strategies and/or action plans relevant to the OT as appropriate.

The DoE has identified specific actions in the "Cayman Islands National Biodiversity Action Plan for the Cayman Parrot" which will be addressed through this project, including Research and Monitoring Objective 2: "Determine the full taxonomic status of races caymanensis and hesternus, and the genetic status of both".

The project will support the UK Government in meeting several of its commitments outlined in Multilateral Environmental Agreements, including the Convention on International Trade in Endangered Species (CITES), and the Convention on Biological Diversity (CBD). The project will also assist the Government of the Cayman Islands in meeting some of its commitments outlined in domestic legislation and the Environmental Charter.

The project aims to support these policies as a key goal is to model future sustainable parrot populations in relation to habitat resources (and current loss of same) to advise on more sustainable development choices and better habitat protection. The overarching aim is to ensure that biodiversity is protected.

In addition, by examining the potential effects of a changing climate on parrot populations, the project will encourage more ambitious climate goals/action for the Cayman Islands, supporting the UN Framework Convention on Climate Change (UNFCCC).

Q16. Collaboration

What collaboration has there been with the proposed beneficiary/ies to date in developing the proposal, and what collaboration is planned for the duration of the project? Where relevant, describe any consultation or collaboration by the proposed beneficiary/ies within their own territory.

The safeguarding of the Cayman Parrot populations has been an ongoing collaborative effort over the past 30 years, between local agencies such as the National Trust for the Cayman Islands (NTCI) and the DoE as well as private local landowners. Collaborations have extended to international efforts, including aid from the US Fish and Wildlife Service to establish long-term monitoring programmes with the DoE; the RSPB facilitating land protection through collaborations between the Rainforest Trust and the NTCI; BirdsCaribbean providing a platform for regional knowledge sharing through presentations, poster sessions and Parrot Working Group meetings.

For the duration of the project, collaboration between the DoE, DICE and the RSPB will facilitate conservation action planning incorporating results of genetic analysis as well as training of Ms Haakonsson to increase capacity on-island. Local stakeholders will be engaged and consulted through the Action Plan workshop facilitated by DoE and enriched by this proposed Darwin project's input and scientific findings, enabling objectives and goals of the established National Biodiversity Action Plan for the Cayman Parrot to be met, while also informing the pending Species Conservation Plan for Cayman Parrots under the NCA.

Q17. Where will the beneficiary/ies be based?

Please be specific with organisational details and dates (where more than one location).

The Lead, Ms. Haakonsson, will be based in the Cayman Islands, on Grand Cayman, where she will continue her regular parrot-related duties with the Department of Environment. These efforts include the ongoing monitoring of both populations, rehabilitation work and completion of duties under the National Conservation Act. Ms. Haakonsson will undertake laboratory work, and genomic analyses and attend relevant classes on DICE's taught MSc Conservation Science programme across two periods of at least three months at the University of Kent across the two-year registration period for her MRes, see attached the Workplan Outline.

The Lead will register for her MRes with DICE on a part-time basis across a two-year period, thereby enabling her to continue her current work commitment with the DoE. Importantly, this arrangement will ensure that the Darwin project's objectives, progress and outputs remain central to the broader objectives of the DoE.

The two partner organisations, DICE and RSPB, both have a well-established and strong global reach, which will provide the ideal platform for ensuring the proposed conservation research, training and associated activities are broadly disseminated, using their social media platforms to engage a wider audience alongside the Caymanian policy-makers in-country.

Section 7 - Workplan

Q18. Safeguarding

All projects funded under the Biodiversity Challenge Funds must ensure proactive action is taken to promote the welfare and protect all individuals involved in the project (staff, implementing partners, the public and beneficiaries) from harm. In order to provide assurance of this, projects are required to have specific procedures and policies in operation.

Please upload the following mandatory policies:

- **Safeguarding and/or PSEAH Policy**: including a statement of commitment to safeguarding and a zero tolerance to inaction statement on bullying, harassment and sexual exploitation and abuse. Policy should include a commitment to either Core Humanitarian Standard (CHS), IASC minimum operating standards for PSEA MOS-PSEA) or CAPSEAH minimum standards.
- **Whistleblowing Policy**: which details a clear process for dealing with concerns raised and protects whistle blowers from reprisals.
- **Code of Conduct**: which sets out clear expectations of behaviours – inside and outside the workplace – for staff and volunteers involved in the project and makes clear what will happen in the event of non-compliance or breach of these standards, up to and including dismissal.
- **Safety and Security Policy or Security Plan**: that outlines a plan on how to mitigate and respond to potential health, safety and security threats.

If any of these policies are integrated into a broader policy document or handbook, please upload just the relevant or equivalent sub-sections to the above policies, with (unofficial) English translations where needed.

Please outline how your project will ensure:

1. beneficiaries, the public, implementing partners, and staff are made aware of your safeguarding commitment and how they can confidentially raise a concern,
2. safeguarding issues are investigated, recorded and what disciplinary procedures are in place when allegations and complaints are upheld,
3. you will ensure project partners also meet these standards and policies.

Indicate which minimum standard protocol your project follows and how you meet those minimum standards, i.e. CAPSEAH, CHS, IASC MOS-PSEA. If your approach is currently limited or in the early stages of development, please clearly set out your plans address this.

DoE

The Project Lead is currently employed by the Department of Environment, a Cayman Islands’ Government entity, and as such is bound by several modern and fully implemented policies on safeguarding, whistle blower protection, code of conduct and risk management (relevant documents attached). The Project Lead will be responsible for ensuring that processes are in place to recognise and respond to any safeguarding, code of conduct or health and safety issues that arise during the project. Standard reporting procedures as outlined in the existing policies will be followed and DoE will be responsible for providing the necessary information and access to existing policies, and training for those who may be working with all groups but especially those who may be in a vulnerable situation.

RSPB


All RSPB workforce and representatives and any organisation or individual working in partnership with the RSPB (whether formal or informal) is expected to follow the RSPB Safeguarding Policy. The policy is publicly available on the RSPB website and all RSPB staff are familiarised with it during inductions and compulsory annual training. The policy and relevant training detail how to confidently raise a concern.


University of Kent


Awareness of safeguarding commitment and how to raise a concern: Project Lead will (i) share safeguarding policies with all partners, ensuring that they also meet the required standards; (ii) deploy Kent’s whistle-blowing policy; (iii) enforce its Code of Conduct. Kent will enforce its robust Safeguarding Policy (U-Direc/SafeG/220524/approved June 2022), ensuring accessibility to all partners, affirming Kent’s commitment to safeguarding and zero-tolerance on bullying/harassment/sexual-exploitation/abuse. Kent will ensure its policy protects direct and indirect beneficiaries, employees and associated partner personnel.


Q19. Workplan

Provide a project workplan that shows the key milestones in project activities.

 [BCF Workplan Template 2024-25 FINAL](#)

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Section 8 - Certification

Certification

On behalf of the

Company

of

Department of Environment, Cayman Islands Government, Cayman Islands

I apply for a grant of





£88,924.00

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)

- I enclose one page CVs for the beneficiary/ies, project principals, cover letter, budget, workplan, letter(s) of support, financial evidence (see guidance), and Safeguarding and associated policies as requested in the Guidance Notes.

















Checked

Name	Timothy Austin
Position in Organisation	Deputy Director, Research and Assessment, DoE
Signed	<div> tim signature</div> <div> 23/09/2024</div> <div> 13:18:24</div> <div> jpg 18.65 KB</div>
Dated	23 September 2024

Please attach the requested signed Financial Evidence.

No Response

Please upload the Lead Organisation's Safeguarding and associated policies as a PDF

<div> Public-Service-Management-Law-2018-Revision</div> <div> 23/09/2024</div> <div> 12:03:14</div> <div> pdf 1.09 MB</div>	<div> Whistle-Blower-Policy</div> <div> 23/09/2024</div> <div> 12:03:12</div> <div> pdf 517.02 KB</div>
<div> Code-of-Conduct-and-PS-Values</div> <div> 23/09/2024</div> <div> 12:03:12</div> <div> pdf 516.6 KB</div>	<div> Anti-Bullying-Harassment-and-Discrimination-Policy-FINAL</div> <div> 23/09/2024</div> <div> 12:03:11</div> <div> pdf 275.41 KB</div>

Section 9 - Submission Checklist

I have read the Guidance documents, including the “Guidance Notes for Applicants” and “Finance Guidance”.	Checked
I have read, and can meet, the current Terms and Conditions for this fund.	Checked

I have provided actual start and end dates for the project.	Checked
I have provided a budget based on UK government financial years i.e. 1 April – 31 March and in GBP.	Checked
The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have provided the relevant letters of support, cover letter, workplan, and CVs with this application.	Checked
I have attached a copy of the Lead Organisation's Safeguarding Policy, Whistleblowing Policy, Code of Conduct and Safety and Security Policy or Security Plan (Question 18).	Checked
The additional supporting evidence is in line with the requested evidence, amounts to a maximum of 5 sides of A4, and is combined as a single PDF.	Checked
(If copying and pasting into Flexi-Grant) I have checked that all my responses have been successfully copied into the online application form	Checked
I have checked the Darwin Plus website immediately prior to submission to ensure there are no late updates.	Checked
I have read and understood the Privacy Notice on the Darwin Plus website.	Checked

We would like to keep in touch!

Please check this box if you would be happy for the lead applicant (Flexi-Grant Account Holder) and project leader (if different) to be added to our mailing list. Through our mailing list we share updates on upcoming and current application rounds under the Darwin Initiative, Darwin Plus and our sister grant scheme, the IWT Challenge Fund. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share our quarterly project newsletter. You are free to unsubscribe at any time.

Checked

Data protection and use of personal data

Information supplied in the application form, including personal data, will be used by Defra as set out in the Privacy Notice, available from the [Forms and Guidance Portal](#).

This **Privacy Notice** must be provided to all individuals whose personal data is supplied in the application form. Some information may be used when publicising Darwin Plus including project details (usually title, lead partner, project leader, location, and total grant value).