

DPLR3\1003

Darwin Plus Local - Final Report (1)

Officer: Linzi Ogden

Section 1 - Darwin Plus Local Project Information (Essential)

Project Reference Number

DPLR3\1003

Q1. Project Title

No Response

Overseas Territory(ies)

☒ British Indian Ocean Territory (BIOT)

Lead Organisation or Individual

Manta Trust: Chagos Manta Ray Project

Partner Organisation(s)

None

Value of Darwin Plus Local Grant Award

£46,713.00

Project Start Date

01 April 2024

Project End Date


30 March 2025

Project Leader Name

Dr Joanna L. Harris

Project Website/Twitter/Blog etc.

Website: www.mantatrust.org/chagos Facebook: Chagos Manta Ray Project



Report Author(s)

Dr Joanna L. Harris

Report Date

17 April 2025

Project Summary

No Response

Project Outcomes

Checked	Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;
Unchecked	Climate Change: responding to, mitigating and adapting to climate change and its effects on the natural environment and local communities;
Checked	Environmental quality: improving the condition and protection of the natural environment;
Checked	Capability and capacity building: enhancing the capacity within OTs, including through community engagement and awareness, to support the environment in the short- and long-term.

Section 2 - Project Outcomes (Essential)

On a scale of 1 (high – outcome substantially exceeded) to 5 (low – outcome substantially did not meet expectation), how successful do you think your project has been?

☒ 1 - Outcome substantially exceeded

Project outcomes and justification for rating above

We have rated this project as “1 – Outcome substantially exceeded” due to its significant impact on conservation capacity, enforcement coordination, and data quality in the British Indian Ocean Territory (BIOT). The Mobulid Ambassador Scheme has led to demonstrable and measurable change, both in the quality of illegal catch data and in the awareness and capability of enforcement personnel and the wider community.

At the outset, we identified a critical gap in the accurate species-level documentation of mobulid catches, which undermines effective management of this highly vulnerable group. This project addressed that gap through a structured ambassador programme, training 20 individuals from key stakeholder groups, including BIOT Police

[Royal Overseas Police Officers (ROPOs)], long-term residents from the Philippines and India, military personnel, and enforcement officials. These ambassadors are now actively contributing to efforts to combat illegal fishing and recording mobulid data, providing vital support to ongoing enforcement operations.

The project's original success indicators (well-attended events, establishment of a trained ambassador team, and submission of mobulid catch and sighting data) have all been met and in many areas surpassed. Outreach events engaged over 260 personnel, workshops trained 44 individuals, and 20 ambassadors were appointed, representing a wide range of sectors. The scheme has already contributed valuable data, including 144 live sightings and detailed records from four instances of illegal fishing. One ambassador-assisted arrest and processing operation demonstrated the practical utility of the scheme, confirming that our training and support model is functional, scalable, and impactful.

We responded directly to all recommendations from the Darwin assessment panel. Specifically:

- We strengthened the causal link between improved data and conservation outcomes by aligning our efforts with enforcement protocols and policy planning mechanisms, including patrol route planning by the Senior Fisheries Protection Officer.
- We facilitated the integration of mobulid data collection into the existing workflows of the BIOT Patrol Vessel and MPA management authority (MRAG), and we revised the data recording templates accordingly.
- The ambassadors provide continuity in data collection and training amid high staff turnover, with continued support from the Manta Trust's Chagos Manta Ray Project.
- We collaborated with the ZSL shark research team on joint outreach and data collection activities, in direct response to Darwin's suggestion to build on Project DPL00011. This cross-project engagement enhanced participation, strengthened community links, and avoided duplication.
- Finally, we ensured the scalability and post-project sustainability of the scheme through a 'train-the-trainer' model, prioritising ROPOs and enforcement personnel with operational responsibilities.

By bridging knowledge gaps in mobulid distribution and catch levels, this project enables the development of targeted recommendations to support enforcement actions and inform future policy discussions. The improved data generated through the scheme will be used to inform key regional and international conservation frameworks, including the CMS Sharks MOU and the Indian Ocean Tuna Commission (IOTC). As a result, the project has significantly strengthened the evidence base needed for the long-term protection of mobulid rays in BIOT and has laid critical groundwork for sustained, collaborative conservation impact.

Supporting Evidence - file(s) upload

Supporting Evidence - links to published document/online materials

VIDEO LINK (The Mobulid Ambassador Scheme) - <https://youtu.be/CFjr3U7X0?si=T3DbJsasKd7dkgyo> - Short film documenting the Chagos Manta Ray Project's 2024 field expedition to Diego Garcia, highlighting the training of Mobulid Ambassadors and community outreach efforts to support mobulid conservation and enforcement in BIOT.

VIDEO PLAYLIST (Community Outreach Event: Manta and Shark Bingo Night and Mobulid Identification Workshops: Marina, Seabreeze Village and USNS PFC Dewayne T. Williams) - <https://youtube.com/playlist?list=PLfyc9ZyjjAqatlltN7WBighC-XlueBvmG&si=bV1Dg6eshl6C7jUU> - Short videos of workshop sessions, outreach events, and citizen science activities.

DOCUMENT LINK - <https://drive.google.com/file/d/1Pv6DPF7swJfOXgEbl6wlnHThcY2uK6-K/view> - Field Guide to Manta and Devil Rays of the World: the illustrated field guide, produced by the Manta Trust with support from this project's funds, which was given to Mobulid Ambassadors, enforcement agencies and other participants. The guide provides comprehensive information on the identification, biology, threats, and conservation of all known manta and devil ray species (mobulids). Designed for use in the field with an integrated online tool that can be accessed using the QR codes in the book, the guide includes species ID keys, anatomical diagrams, gill plate identification features, and best-practice data collection protocols to support monitoring, enforcement, and education efforts worldwide. This guide is due to be published shortly: Stevens, G. M. W, Barros, N., Laglbauer B.J., Dando M., Fernando, D & Norbartolo di Sciara G. (2025) Field Guide to the Manta and Devil Rays of the World. Wild Nature Press.

Project Challenges

One of the main challenges encountered during the project was the high turnover of personnel on Diego Garcia, particularly among enforcement and military staff. This affected the continuity of training and data collection. To

address this, we adapted our strategy by incorporating a 'train-the-trainer' model, allowing locally based ambassadors to deliver ongoing training to new personnel. This approach ensured continuity and reduced reliance on external trainers.

A second challenge was scheduling and coordinating training workshops around operational commitments, particularly for enforcement personnel. To mitigate this, we maintained flexible workshop formats and held repeat sessions to accommodate different shift patterns.

Additionally, initial identification of mobulid species from catch material proved more difficult, especially when dealing with gill plates or partial specimens. In response, we refined the Field Guide to Manta and Devil Rays of the World and increased support from project staff during live documentation efforts, including remote assistance by video call where necessary.

Finally, communication infrastructure constraints in some areas posed difficulties for real-time support and data submission. We provided data bundles as part of the ambassador packs to improve connectivity and ensured alternative submission methods were available.

These adaptations allowed the project to remain on track and responsive to changing local conditions, while building long-term capacity within the community.

Lessons Learned

A key success factor was early engagement with local enforcement bodies and community members, which created a sense of ownership and ensured strong participation throughout. Outreach events, particularly those co-hosted with other organisations, proved highly effective in building trust and recruiting ambassadors. The flexibility to tailor workshops to different audiences also contributed to strong attendance and outcomes.

What worked less well initially was the reliance on fixed training dates. Given the operational demands on personnel, a more flexible and ongoing training schedule proved more effective and has since been integrated.

In future, we would establish the train-the-trainer component earlier in the project to ensure long-term sustainability from the outset. We would also consider integrating refresher training sessions every few months to maintain ambassador engagement and address knowledge gaps that may emerge over time.

From an administrative perspective, incorporating regular feedback mechanisms, both formal and informal, enabled us to identify issues early, adjust training schedules as needed, and refine support for ambassadors. Clear communication channels, including WhatsApp and email, were essential for maintaining contact with ambassadors and coordinating field responses.

Based on the success of this project, we will continue to prioritise early relationship-building with stakeholders, maintain flexible delivery approaches, and account for high personnel turnover in remote deployments. We will also maintain a locally driven training model and ensure that data recording tools remain accessible and user-friendly. These strategies proved essential to the project's effectiveness and will remain central to our approach in future initiatives.

Section 3 - Project Finance (Essential)

Project Expenditure

Project Spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total actual Darwin Plus Costs (£)	Variance %	Comments (please explain significant variances)
Staff Costs				
Consultancy Costs				
Overhead Costs				
Travel and Subsistence				
Operating Costs				
Capital Items				
Others				
Total	46,713.00	46,656.00	-0.1	

Please provide a short narrative summary on project finances.

Capital equipment costs initially allocated for purchasing cameras for the Mobulid Ambassadors were not required, as the UK military generously provided them. Consultancy costs were significantly lower than anticipated due to Guy Stevens delivering the Mobulid ID workshops in place of Betty Laglbauer, who was unexpectedly on maternity leave. Additionally, delays in producing the Fieldwork Guide to Manta and Devil Rays resulted in reduced production costs.

The project received an overwhelmingly positive response, with a higher-than-expected number of outreach participants expressing interest in becoming Mobulid Ambassadors. As a result, additional funds were allocated under operating costs to produce extra outreach materials, including Mobulid Ambassador packs. Furthermore, due to the enthusiastic engagement of island personnel, the fieldwork period was extended to eight weeks to maximise participation, leading to increased travel and subsistence expenses.

A total of [REDACTED] in match funding was secured, including [REDACTED] from the Manta Trust for Dr. Guy Stevens' time (5% FTE for 12 months), [REDACTED] from a Waterloo Foundation grant for Betty Laglbauer's global Mobulid ID training workshop, and [REDACTED] from the Bertarelli Foundation for Rachel Jones (ZSL) to provide logistical support

in Chagos.

Following the project's success and the strong ongoing interest from enforcement personnel, additional funding [REDACTED] was secured by the Chagos Manta Ray Project in February 2025 to support further fieldwork in March 2025 to extend the project to the BIOT police force.

Section 4 - Contribution of Project to Darwin Plus Programme Objectives

Please select up to **one** indicator that applies within **each group/indicator list (A, B, C, D)** and report your results for that indicator in the text box underneath. If you do not have relevant results to report for any of the indicators in a particular group, you can leave them blank.

Please also submit some form of evidence (above) to demonstrate any results you list below, where possible.

Group A: Capability and Capacity - Core Darwin Plus Standard Indicators (select one)

Checked	DPLUS-A01: Number of people from key national and local stakeholder groups completing structured and relevant training.
Unchecked	DPLUS-A02: Number of secondments or placements completed by individuals of key local and national stakeholders.
Unchecked	DPLUS-A03: Number of local/national organisations with improved capability and capacity as a result of project.
Unchecked	DPLUS-A04: Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training.
Unchecked	DPLUS-A05: Number of trainers trained reporting to have delivered further training by the end of the project.

Group A Indicator Results

44 people from key national and local stakeholder groups, including Marine Resources Group's (MRAG) Senior Fisheries Protection Officers, BIOT Police [Royal Overseas Police Officers (ROPOs)], UK and US military personnel, long-term island residents, and environment officers, completed structured training in mobulid identification and illegal catch and live sightings data recording.

Group B: Policies, Practices and Management- Core Darwin Plus Standard Indicators (select one)

Unchecked	DPLUS-B01: Number of new/improved habitat management plans available and endorsed.
Unchecked	DPLUS-B02: Number of new/improved species management plans available and endorsed.
Unchecked	DPLUS-B03: Number of new/improved community management plans available and endorsed.
Unchecked	DPLUS-B04: Number of new/improved sustainable enterprises/ community benefits management plans available and endorsed.
Checked	DPLUS-B05: Number of people with increased participation in local communities / local management organisations (i.e., participation in Governance/citizen engagement).
Unchecked	DPLUS-B06: Number of Local Stakeholders and Local Communities (people) with strengthened (recognised/clarified) tenure and/or rights.

Group B Indicator Results

20 people from diverse sectors, including enforcement, local communities, and military, participated directly in marine conservation governance by contributing to mobulid monitoring, training delivery, and illegal catch response.

Group C: Evidence and Best Practices - Core Darwin Plus Standard Indicators (select one)

Unchecked	DPLUS-C01: Number of best practice guides and knowledge products published and endorsed.
Unchecked	DPLUS-C02: Number of new conservation or species stock assessments published.
Unchecked	DPLUS-C03: New assessments of habitat conservation action needs published.
Unchecked	DPLUS-C04: New assessments of community use of biodiversity resources published.
Checked	DPLUS-C05: Number of projects contributing data, insights, and case studies to national Multilateral Environmental Agreements (MEAs) related reporting processes and calls for evidence.

Group C Indicator Results

Project findings are being prepared for submission to the CMS Sharks MOU and Indian Ocean Tuna Commission (IOTC), contributing evidence to support regional mobulid conservation and illegal fishing policy development.

Group D: Sustainable Benefits to People, Biodiversity and Climate - Core Darwin Plus Standard Indicators (select one)

Unchecked **DPLUS-D01 Hectares of habitat under sustainable management practices.**

Unchecked **DPLUS-D02: Number of people whose disaster/climate resilience has been improved.**

Unchecked **DPLUS-D03: Number of policies with biodiversity provisions that have been enacted or amended.**

Group D Indicator Results

Not yet applicable, but the MPA enforcement policy, which is under review for future amendment, will be informed by mobulid data collected through this project. The project provided species-specific data and recommendations to support the integration of biodiversity monitoring provisions.

Section 5 - Project Partnerships, Wider Impacts and Contributions

Project Partnerships

This project was delivered by the Manta Trust's Chagos Manta Ray Project in collaboration with local enforcement authorities, MRAG, government personnel, and NGOs operating in the British Indian Ocean Territory (BIOT). The Chagos Manta Ray Project led project planning, training design, and coordination, while local partners supported implementation through facilitation of outreach, recruitment, and field deployment.

The BIOT Administration and the Environment Department provided essential support in coordinating access, communications, and integration with existing enforcement procedures. The BIOT Police [Royal Overseas Police Officers (ROPOs)] played a key role in implementing training and mobilising Mobulid Ambassadors during illegal fishing response operations.

Close collaboration with local enforcement and military personnel was critical to the project's success. One of the most significant achievements was the rapid uptake of the Mobulid Ambassador Scheme across multiple sectors, made possible by early engagement, regular communication, and a flexible training model.

A key lesson was the value of embedding project activities within existing institutional structures, such as patrol planning and detention protocols, to ensure practical relevance and long-term sustainability.

Additional stakeholders not formally listed as project partners, such as MRAG, local community liaison officers, and ZSL collaborators, supported the project through data sharing, joint outreach events, and logistical coordination. Their involvement enriched the project's reach and impact, particularly in community engagement and citizen science components.

Wider Impacts and Decision Making

This project has made a meaningful contribution to embedding environmental considerations into decision-making in the British Indian Ocean Territory (BIOT), particularly as the MPA is currently undergoing a review of its spatial management. The data collected through the Mobulid Ambassador Scheme is the first targeted dataset on mobulid ray sightings and illegal catch composition in BIOT. This information will support the identification of high-risk areas for mobulid exploitation and will inform future marine spatial planning decisions.

By equipping local personnel, such as the Senior Fisheries Protection Officer (SFPO), ROPOs, and Environment Officers, with the necessary tools and training to collect species-specific data, the project has strengthened the evidence base used to guide patrol planning and enforcement strategies. These operational decisions are

directly tied to broader conservation priorities within the MPA.

Furthermore, the integration of mobulid-specific data collection into regular enforcement activities has highlighted the need for biodiversity-focused evidence in marine management. This has prompted a shift in awareness within enforcement and administrative bodies toward the value of species-level monitoring in illegal fishing response and MPA governance.

Findings and recommendations will also be communicated to international frameworks, including the CMS Sharks MOU and the IOTC, strengthening the UK's contributions to regional and global conservation policy. As such, the project not only contributes locally but also reinforces the role of BIOT in international biodiversity protection efforts.

Sustainability and Legacy

The Mobulid Ambassador Scheme, delivered under the Chagos Manta Ray Project (CMRP), has established a sustainable foundation for long-term mobulid conservation and enforcement support in BIOT. Although Darwin Plus Local funding has concluded, the benefits of the project continue. The ambassador network remains active, with trained personnel, including ROPOs, military staff, and long-term residents, now integrated in local enforcement and monitoring activities.

To maintain momentum, the CMRP secured additional funding to return to Diego Garcia in March 2025 to deliver in-person training to newly deployed ROPOs.

In periods where in-person engagement is not feasible due to funding constraints or logistical barriers, the CMRP continues to support ambassadors remotely. This includes regular communication via a designated Facebook group, WhatsApp groups, and video calls, enabling ongoing guidance, data verification, and peer-to-peer knowledge exchange.

Project resources, including training materials, mobulid ID tools, and data collection templates, have been retained and are in active use. The project staff remain involved through the broader work of the CMRP, ensuring continuity in scientific oversight and strategic planning. These ongoing efforts aim to embed mobulid conservation into long-term enforcement operations, policy development, and marine spatial planning in BIOT, preserving the project's legacy well beyond its initial funding period.

Following the ongoing success of this project, further funding opportunities are actively being pursued to expand the scheme to all relevant UK Overseas Territories.

Section 6 - Communications & Publicity

Exceptional Outcomes and Achievements

The Mobulid Ambassador Scheme, delivered by the Chagos Manta Ray Project (CMRP) and funded by Darwin Plus Local, represents a pioneering effort to address illegal fishing impacts on threatened manta and devil rays (mobulids) in the British Indian Ocean Territory (BIOT). As the first dedicated initiative of its kind in the region, this project successfully built local capacity for species identification and illegal catch data collection, significantly enhancing enforcement capability and biodiversity monitoring in the world's largest no-take Marine Protected Area (MPA).

The scheme trained 44 individuals from diverse sectors, including the Royal Overseas Police Officers (ROPOs), US and UK military personnel, and long-term resident contractors from the Philippines and India, through targeted workshops in mobulid identification and catch documentation. From this group, 20 individuals were appointed

as Mobulid Ambassadors, forming an operational network that supports real-time enforcement of illegal fisheries and contributes critical data to conservation and spatial planning efforts.

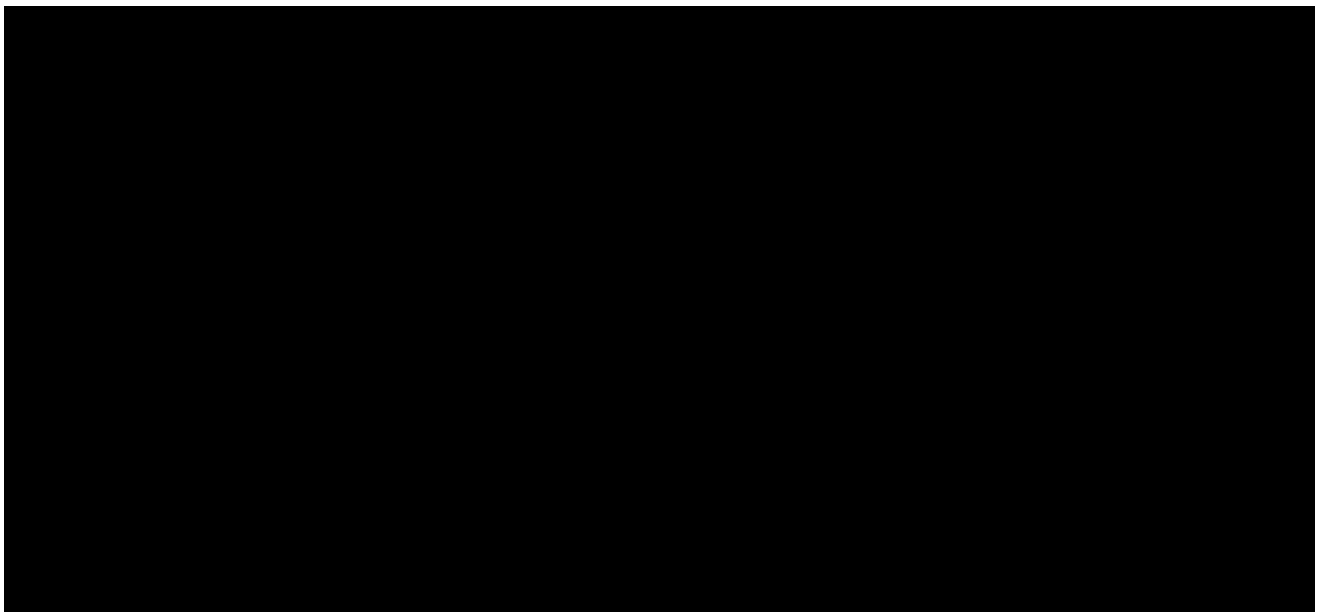
The project has already contributed valuable records, including four illegal catch events involving mobulid gill plates, and 144 live sightings of mobulids across Diego Garcia. The scheme has been formally integrated into the operations, and in March 2025, further funding enabled the CMRP to return to Diego Garcia to train a new cohort of ROPOs.

To support ongoing engagement between field visits, ambassadors stay connected with the CMRP through established communication channels. These informal networks allow for real-time advice, data sharing, and peer support, helping ambassadors remain engaged, confident in their roles, and responsive during enforcement or sighting events.

This community-driven conservation and enforcement support model is now being explored for expansion across other UK Overseas Territories with mobulid presence. The scheme demonstrates how targeted, collaborative training and data collection can generate tangible conservation outcomes, support governance, and empower local stakeholders to play a central role in protecting vulnerable marine species.

Photo, video or graphic to be used for publicity and communications.

Please upload at least one relevant and engaging image, video or graphic that you consent to be used alongside the above text in Defra, JNCC or NIRAS communications material.



Photo, video, and/or graphic captions and credits.

Main video

Link: https://youtu.be/CFjr3U7X0?si=piPlg8n81eQ53QI_

Follows the Chagos Manta Ray Project's 2024 field expedition to the Chagos Archipelago, documenting efforts to improve mobulid ray conservation. Led by Dr Joanna L. Harris, the project trained Mobulid Ambassadors on Diego Garcia in species identification and data collection for illegal catches and live sightings. Outreach events engaged over 160 participants, with 36 completing training and 12 selected as Ambassadors. The video captures both the research and community engagement that are helping to strengthen enforcement and identify critical habitats for endangered mobulid rays - this video was filmed and produced by Leila Scheltema (The Manta Trust: www.mantatrust.org)

Photos

Filename: Marina

Participants from the Filipino community attending the first Mobulid Identification Workshop at the Marina, Diego Garcia, November 2024 – Diego Garcia, Chagos Archipelago – Photo credit: Leila Scheltema (The Manta Trust: www.mantatrust.org)

Filename: Seabreeze

Filipino community members at the Mobulid Identification Workshop held at Seabreeze Village, Diego Garcia, November 2024 – Diego Garcia, Chagos Archipelago – Photo credit: Leila Scheltema (The Manta Trust: www.mantatrust.org)

Filename: ROPO Training

Mobulid Identification Workshop delivered to Royal Overseas Police Officers (ROPOs), Diego Garcia, March 2025 – Diego Garcia, Chagos Archipelago – Photo credit: Dr Joanna Harris (Chagos Manta Ray Project, The Manta Trust: www.mantatrust.org/chagos)

Filename: Mobulid Ambassadors

Nine of the first twelve Mobulid Ambassadors appointed in December 2024 following completion of the training workshops – Diego Garcia, Chagos Archipelago – Photo credit: Leila Scheltema (The Manta Trust: www.mantatrust.org)

Filename: ROPO Ambassadors

Nine Royal Overseas Police Officers (ROPOs) formally appointed as Mobulid Ambassadors in March 2025 – Diego Garcia, Chagos Archipelago – Photo credit: Dr Joanna Harris (Chagos Manta Ray Project, The Manta Trust: www.mantatrust.org/chagos)

Filename: Reef Manta Ray

A reef manta ray (*Mobula alfredi*) observed at a cleaning station near Diego Garcia – Diego Garcia, Chagos Archipelago – Photo credit: Leila Scheltema (The Manta Trust: www.mantatrust.org)

I agree for the Biodiversity Challenge Funds Secretariat, Administrator, and/or JNCC to publish the content of this section.

☒ Yes, I agree for the BCFs Secretariat and/or JNCC to publish the content of this section.

Please list any accounts that you would like tagged in online posts here. This can include project pages, partners' pages or individuals' accounts for any of the following platforms: LinkedIn, Facebook, Twitter, or Instagram.

The Manta Trust: @MantaTrust (all platforms)

Marine Science: Instagram and Facebook - @iomarinescience and X (Twitter) - @Marine_Science

University of Plymouth: @PlymUni (all platforms)

Section 7 - Darwin Plus Contacts

Please tick here to confirm that you have read and acknowledge the BCF's Privacy Notice on how contact details will be used and stored and that you have sought agreement from anyone that you are sharing personal details with us on their behalf.

☒ I confirm I have read the Privacy Notice and have consent to share the following contact details

Project Contact Details

Project Contact Name	Joanna Harris
Role within Darwin Plus Project	Project lead
Email	
Phone	
Do you need further sections to provide additional contact details?	<input checked="" type="radio"/> No