

DPLR2\1017

Darwin Plus Local - Final Report (1)

Officer: Jessica Magnus

Section 1 - Darwin Plus Local Project Information (Essential)

Project Reference Number

DPLR2/1017

Q1. Project Title

Increasing Cayman Youth Environmental Awareness Through Immersive Education

Overseas Territory(ies)

Cayman Islands

Lead Organisation or Individual

Dr Gretchen Goodbody Gringley, Central Caribbean Marine Institute

Partner Organisation(s)

NA

Value of Darwin Plus Local Grant Award

██████████

Project Start Date

01 October 2023

Project End Date

31 March 2024

Project Leader Name

Victoria Mann

Project Website/Twitter/Blog etc.

www.reefresearch.org

Report Author(s)

Report Date

30 April 2024

Project Summary

Immersive learning experiences at CCMI provide students with a once-in-a-lifetime opportunity to engage with nature, witness biodiversity, and participate in active research. These opportunities, however, are often financially out of reach for the average household in the Cayman Islands. This project will offer fully funded placements for local students to participate in a week-long introductory marine biology and conservation course. This project will train the next generation of ocean stewards, building capacity for future careers in science and conservation.

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;
Unchecked	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?

2 - Outcome moderately exceeded

Project outcomes and justification for rating above

2. Outcome moderately exceeded

Achieving our original objective, 14 Caymanian students were awarded full scholarships to attend the Central Caribbean Marine Institute's (CCMI), Caribbean Marine Ecology Camp (CMEC) during the October half-term break. The CMEC fostered community engagement and heightened awareness, inspiring the protection of biodiversity by delivering a seven-day immersive programme at the Little Cayman Research Centre.

We measured the project's success in two primary ways. First, the number of applications demonstrated a significant exceedance of our objectives, with CCMI receiving a record 45 applications from Caymanian students aged 14-17, across 10 schools. The strength and calibre of applications received were exceptionally high,

underscoring the programme's appeal and success. This abundance of strong candidates made the selection process for awarding scholarships particularly challenging, further emphasizing the programme's significance and the demand for environmental education in the Cayman Islands.

Second, the pre- and post-programme surveys revealed marked improvements in students' confidence in identifying Caymanian species and their enjoyment of STEM, with a 39% increase in agreement. Additionally, the surveys showed a 23% increase in enjoyment of snorkelling. In the post-programme survey, 100% of students agreed with the statements:

- Overall, I enjoyed my time at CCMI.
- I learnt something new about the ocean or marine life.
- I would tell other students to come to CCMI.
- I would come back to CCMI in the future.


Moreover, 92% felt more environmentally aware and inspired to take environmental action, with impactful student comments highlighting the lasting impacts of the programme like Rosie Dixon's: "CCMI really gave me a better understanding of the marine life that surrounds my home. I am so grateful for this opportunity, and I will never forget it."


The transformative experiences encountered during the camp, unique to every student, cannot truly be quantified. For instance, Evan Moore experienced a newfound sense of independence, as his first time away from home: 'It was spectacular...it gave me a great feel for independence.' Similarly, Jyzelah McCoy discovered her career aspirations: 'I really realized that we need to protect our marine life more and also this programme has changed my head on what profession I would like to do.' Nazli Clarke's experience further exemplifies the programme's role in shaping future scientists: 'Being at CCMI confirmed my passion for wanting to be a marine biologist...It gave me a good basis of what Marine Biology is and excited me to study Marine Biology in university!' As well as inspiring many students to share their newfound knowledge and experiences with others like Sade Hamilton: "It has impacted me to try to save our oceans and teach others about my knowledge."

The programme also significantly influenced students' career aspirations, as evidenced by a notable shift in their professional interests towards marine fields. Interest in marine-related fields increased from 54% to 85%, and notably, from 36% of students being undecided about their future career paths to zero students unsure, underscoring the programme's profound impact on clarifying and directing students' career aspirations toward marine sciences.

Supporting Evidence - file(s) upload


 [Intern Post-Programme Questionnaire](#)


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 pdf 168.16 KB


 [DP CMEC Post-program Survey](#)


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 [DP CMEC Pre-program Survey](#)

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Supporting Evidence - links to published document/online materials

Darwin Plus Caribbean Marine Ecology Camp Video: https://www.youtube.com/watch?v=ZrrmVQ_Q2fl

Darwin Plus Caribbean Marine Ecology Camp social media reel: <https://fb.watch/rfRXsXmUx8/>

CCMI's Website News: <https://reefresearch.org/darwin-plus-scholarships-1023/>

Post-programme Email: <https://conta.cc/3MlisRN>

Press release: <https://www.ieyeneews.com/ccmi-now-accepting-scholarship-applications-for-the-caribbean-marine-ecology-camp-in-little-cayman/>

CCMI Social Media @Reefresearch:

Instagram: <https://www.instagram.com/reefresearch/?hl=en>

Facebook: <https://www.facebook.com/reefresearch>

YouTube: <https://www.youtube.com/user/ccmireefresearch>

Project Challenges

Due to adverse weather conditions, the scheduled five boat days were reduced to two. The team responded proactively, revising the schedule to maximize water-based learning opportunities. An alternative activity, a seagrass and mangrove snorkel, was introduced, becoming a highlight for many participants and has since been incorporated into all high school programmes as a testament to its success.

One student did not complete the post-programme survey. The student was moved out of the care system shortly after the programme despite repeated attempts to reach the student's family we were unable to get a contact to request the completion of the survey.

The remote island location presented challenges in procuring supplies within a tight timeframe. Some supplies arrived post-programme; however, they have since been integral to the success of subsequent scholarship programmes and will have a long-lasting impact on CCMI programmes.

The severe bleaching event presented a challenge; the focus of local programmes is always to highlight the outstanding beauty of the healthy reefs of Little Cayman. However, students still had a strong takeaway from the programme: "I would say pretty largely its opened my eyes to the dire situation the marine world is in. Which just makes me want to help even more." -Evan Moore

Lessons Learned

i)

- Recruitment – good network & relationship CCMI has built with local schools. Press release, radio adverts & social media push.
- CMEC Programme – Running programme for 10+ years perfecting the programme from student feedback. Experienced hardworking team of staff at CCMI.

ii)

- Supplies arrived after programme – remote island location and short turn around between funding and running programme.

iii)

- Increase scholarships to meet demand – the most challenging part of the programme was rejecting the high number of strong applicants due to limited scholarships.
- Alternatives to increase impact and reach across the community – 1-day outreach events on Grand Cayman in Government schools to target a broader group and age ranges that may be too young for residential or those unwilling to be away from home.
- Longer internship – this would provide more time for the intern to have professional growth. A minimum of 3-month internship ensures interns get the most out of the experience.
- Communications –participants recording their own footage bought a sense of authenticity to project communications but was challenging to edit. Use a combination of self-recorded and staff recorded footage, with a clearer brief.

iv)

- Building a network with local schools is essential for recruitment.
- Younger/earlier engagement with students and parents to dispel misconceptions about safety in the water (e.g. shark attacks).
- Seek sustainable annual funding to allow students to apply the following year if they were not chosen for the first year.

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	████████	████████	0	No Response
Consultancy Costs	£0.00	£0.00	0	No Response
Overhead Costs	████████	████████	0	No Response
Travel and Subsistence	████████	████████	█	No Response
Operating Costs	████████	████████	█	No Response
Capital Items	£0.00	£0.00	0	No Response
Others	████████	████████	█	No Response
Total	████████	████████	█	

Please provide a short narrative summary on project finances.

Funds were spent as budgeted and within category. Operations costs were slightly lower than budgeted due to lower boat usage as planned. However, other activities were substituted, meaning only a difference of -3% was spent. Flights were slightly over the budgeted cost, bringing the Travel and subsistence actual above the budget by 1%. All other costs were within 1%.

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

14 Caymanians aged 14-17 have completed the week-long residential course, learning about marine biology, conservation, and sustainability through in-land and field-based experience, including plankton net tows, beach clean-ups, coral restoration activities and invasive lionfish dissections.

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.
Unchecked	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

NA

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.**

Unchecked **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

NA

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

NA

Section 5 - Project Partnerships, Wider Impacts and Contributions

Project Partnerships

Local schools were heavily involved in the recruitment of scholarship students for this programme. The project lead, Victoria Mann visited 14 schools reaching 50 teachers and over 800 students in a week trip to Grand Cayman, advertising scholarships and having an even greater environmental education reach, by teaching students about the ongoing bleaching event. Visiting Grand Cayman was very beneficial to continuing to maintain a strong network within the schools.

Wider Impacts and Decision Making

The project's target audience was the youth of the Cayman Islands. Although there has been no direct impact on decision making as of yet, these Caymanian students are the next generation of managers, policy makers, and politicians. Engaging students at this age with the beauty, importance and fragility of the marine environment will undoubtedly impact decision-making processes and foster environmental advocacy in future years, particularly if this interest continues to be encouraged and nurtured. Similarly, the participants will continue to spread their newly gained knowledge with friends and family, generating a domino-effect that could influence decision making, public opinion and political choices in future years.

Sustainability and Legacy

This project will have long-lasting impacts on the mindset of local students, as they carry their learning from this programme with them for the rest of their lives. Students have already given assemblies to their peers to spread awareness of the importance of the marine environment and share their experiences during the CMEC.

The short video will be utilised to recruit students for our annual Ocean Science Scholar funded Caribbean Marine Ecology Camp this summer. As well as utilised to serve as evidence when seeking future funding. The video also served as educational, sharing CCMI's latest research that 93% of corals on the reefs of Little Cayman bleached in 2023.

The resources will continue to be utilised at CCMI for many of the other scholarship students and visiting groups for years to come. Lauren Bulik the Darwin Plus Marine Education Intern has already gone on to secure a professional job in Marine Science and is already using the skills gained during her internship to inspire more students.

"It was an honour to be part of an experience that hopefully the students who came through CCMI will remember for the rest of their lives and be part of the reason why they treat the ocean with kindness and respect and pass that message to their friends and family at home. I know that I will remember my experience in Little Cayman, and have grown not only professionally from it, but also personally."

Section 6 - Communications & Publicity

Exceptional Outcomes and Achievements

With the UK Government's Darwin Plus Programme funding, CCMI hosted a fully-funded scholarship Caribbean Marine Ecology Camp (CMEC) for 14 young Caymanians during October half-term 2023. We received a record number of applications, with 45 Caymanians aged 14-17 applying for the scholarship. Once the participants arrived the CCMI's Little Cayman Research Centre, the once-in-a-lifetime immersive education experience began, supporting students to engage with nature, witness biodiversity, and participate in active research.

Participants gained first-hand experience of field surveys, cutting-edge lab experiments, invasive species monitoring, beach clean-ups, fish dissection and coral restoration and also witnessed the devastating impact of 2023's mass coral bleaching event on the reefs of Little Cayman. The students enjoyed the beach clean so much that after their Marine Plastics & Pollution lecture students requested an additional beach clean to be added to the schedule!


Upon project completion, 92% of participants felt more environmentally aware and inspired to take environmental action. This was reiterated by participant Evan Moore, who said '[the programme] has opened my eyes to the dire situation the marine world is in. Which just makes me want to help even more'.


Sade Kaylee Hamilton, another CMEC participant, went on to say 'thank you for making this possible for me to learn more about the beautiful oceans of the Cayman Islands. I enjoyed every second, now with this information I will definitely make sure to spread the word to my friends and others who are interested in learning more about the ocean'.


These opportunities are often financially un-feasible for many households in the Cayman Islands, with the support of Darwin Plus, CCMI had the pleasure of taking these participants on an in-depth journey into the science and conservation of the beautiful yet vulnerable marine world of their Islands, cultivating curiosity and conservation and fostering environmental stewardship for a more sustainable future for our ocean.


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.


 [CCMI_DplusCMEC_2023_7](#)


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

CCMI_DplusCMEC_2023_1: Caribbean marine ecology camp participants out on a snorkel on the coral reefs of Little Cayman, Cayman Islands. Credit: Central Caribbean Marine Institute (CCMI).

CCMI_DplusCMEC_2023_2: Two of the Caribbean Marine Ecology Camp students preparing for a guided snorkel with CCMI educators in Little Cayman, Cayman Islands. Credit: Central Caribbean Marine Institute (CCMI).

CCMI_DplusCMEC_2023_3: Caribbean Marine Ecology Camp participants enjoying spending time in the ocean and on the CCMI boat after a guided snorkel on Little Cayman's diverse coral reefs. Credit: Central Caribbean Marine Institute (CCMI).

CCMI_DplusCMEC_2023_4: A Caribbean Marine Ecology Camp participant joining with a marine science lecture with the CCMI education team, explaining the anatomy of a coral polyp. Credit: Central Caribbean Marine Institute (CCMI).

CCMI_DplusCMEC_2023_5: Group photo of the 14 Caribbean Marine Ecology Camp scholarship students enjoying their time on the beautiful beaches of Little Cayman, Cayman Islands – the first time most of the group have ever visited Little Cayman. Credit: Central Caribbean Marine Institute (CCMI).

CCMI_DplusCMEC_2023_6: Group photo of the 14 Caribbean Marine Ecology Camp scholarship students at CCMI's Little Cayman Research Station, Cayman Islands. Credit: Central Caribbean Marine Institute (CCMI).

CCMI_DplusCMEC_2023_7: Caribbean Marine Ecology Camp (CMEC) participants preparing a sign for the wall of

CCMI's Little Cayman Research Station to commemorate their once-in-a-lifetime experience with CCMI. Credit: Central Caribbean Marine Institute (CCMI).

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.

Instagram:
@reefresearch

Twitter:
@reefresearch

Facebook:
CCMI - Central Caribbean Marine Institute

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	Gretchen Goodbody Gringley
Role within Darwin Plus Project	Lead Individual
Email	[REDACTED]
Phone	[REDACTED]
Do you need further sections to provide additional contact details?	<input checked="" type="radio"/> Yes

Additional Project Contact Details

Project Contact Name	Victoria Mann
Role within Darwin Project	Project Leader
Email	[REDACTED]

Phone

NA

Do you need further sections to provide additional contact details?

No
