

DPLR1\1083 Project DPL00017

Darwin Plus Local - Final Report (1)

Officer: Jessica Magnus

Section 1 - Darwin Plus Local Project Information (Essential)

Project Reference Number

DPL00017

Q1. Project Title

Pollution and invasive species management, Spittal Pond Nature Reserve

Overseas Territory(ies)

Bermuda

Lead Organisation or Individual

Bermuda National Trust

Partner Organisation(s)

Bermuda Government, Department of The Environment and Natural Resources

Value of Darwin Plus Local Grant Award

£49,995.00

Project Start Date

03 April 2023

Project End Date

31 January 2024

Project Leader Name

Myles Darrell

Project Website/Twitter/Blog etc.

No Response

Report Author(s)

Report Date

29 February 2024

Project Summary

No Response

Project Outcomes

Checked	Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;
Checked	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;
Unchecked	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?

3 - Outcome met expectation

Project outcomes and justification for rating above

Biodiversity has been substantially increased through the planting of natives and endemic species. More plants were planted than anticipated.

The community came out and supported this project with more enthusiasm than was anticipated.

Carbon sequestering capacity has been enhanced by increasing the number of trees at the site and by protecting the pond from the cattle to enable the mangroves to flourish.

Invasive species removal has opened up space to plant more native and endemic flora and allow for more effective long-term management of the site.

A baseline for water quality has been established after decades without testing.

Unity in the community: more than 150 Bermudian and expatriate volunteers joined in to help plant and learn

about Bermuda's native and endemic trees, shrubs and ground covers.

Students from schools across the island were involved in propagating and fostering the growth of natives and endemic flora for the project.


With the fence established cattle can no longer access the pond.


Now that the cattle cannot access the pond, Black mangroves (*Avicennia germinans*) are becoming well established.


Mangrove seeds and seedlings were cast and planted to strengthen the riparian zone on the north side of Spittal Pond.


New signage was created for a culturally important part of the nature reserve through a process of collaboration, community outreach and research. Addressing this was critical to creating a welcoming environment, aligned with the Bermuda National Trust's strategic goals and the International National Trust Organisation (INTO) RISE programme focused on reinterpreting sites of enslavement.


Supporting Evidence - file(s) upload


 [IMG-20240127-WA0020](#)


 29/02/2024


 22:18:18


 jpg 861.56 KB


 [Spittal Pond water quality test 5.17.23](#)


 27/02/2024


 15:53:48


 png 305.96 KB


 [Portuguese rock sign reinterpreted 2024](#)


 27/02/2024


 15:51:36


 png 391 KB


 [Spittal Pond fence, ditch and berm construction 2024](#)


 27/02/2024

 15:51:11


 jpg 1.46 MB


 [IMG-20240127-WA0040](#)


 27/02/2024


 15:49:47


 jpg 402.88 KB


 [IMG-20240127-WA0022](#)


 27/02/2024


 15:39:01

 jpg 770.88 KB

 [IMG-20240127-WA0015](#)

 27/02/2024

 15:38:26

 jpg 1.02 MB

Supporting Evidence - links to published document/online materials

<https://www.royalgazette.com/environment/news/article/20230627/spittal-pond-protection-plan-submitted-by-bermuda-national-trust/>

<https://www.royalgazette.com/environment/news/article/20240120/spittal-pond-community-day-planned-for-next-weekend/>

<https://www.royalgazette.com/environment/news/article/20240128/volunteers-plant-trees-to-help-protect-island->

This is the conservation management plan associated with the project and approved by the Bermuda planning department and endorsed by the Department of the Environment and Natural Resources. I could not attach it above as the file seems to be too big.

Project Challenges

Unusually heavy rainfall caused a delay in the start of the project.

The neighbouring farmer was opposed to the entire project. Difficulties with the adjacent farm tenant meant we had to engage in last minute amendments to the conservation management plan. This increased our costs and caused further delay. Ensuing conversations with the government team were very productive, however, and they were so supportive of the initiative that they doubled the size of the public property available for the project. The Cabinet Minister responsible is now working to ensure the site remains under management by the Bermuda National Trust to protect its environmental value for the future. With the site increased to approximately one acre, we were able to plant more plants. As well as managing the site for the long term, the Trust has also secured additional sponsorship for the ongoing maintenance work.

Finding enough native and endemic plants to fulfil our planting intentions proved more challenging than anticipated. This led us to embark on a growing project with local students – and we ended up with more plants than expected. It turned out to be a great way to get more buy-in and additional community involvement on the project. As the availability of natives and endemics is an ongoing issue for Bermuda, we have continued this propagation programme. A corporate grant is enabling us to grow healthier plants and more than ever. The Black mangrove growth continues to be particularly rewarding.

Lessons Learned

Making fence posts for the project out of invasive species was an effective recycling project. Removal of invasive trees from other reserves freed up space to plant more natives and endemics, increasing biodiversity and protection of endangered species.

Demonstration of the links between cultural and natural heritage concerns was effective in bringing the community on board. It connected different parts of the community and provided the opportunity to generate critical conversations about the nature gap and how to bridge it. It was inspiring to witness community focus group dialogue between members of the Portuguese and African communities resulting in greater understanding about each other and our community. The support of focus groups to upgrade signage was a win: we got better signage and members of the community engaged in an exercise that underscored the inextricable link between cultural and natural heritage.

Working with the adjacent farmer was difficult and arguably didn't work well. The farmer was upset his cattle would lose grazing opportunities at the edge of the pond and was insulted by the idea that his cattle could be polluting the nature reserve.

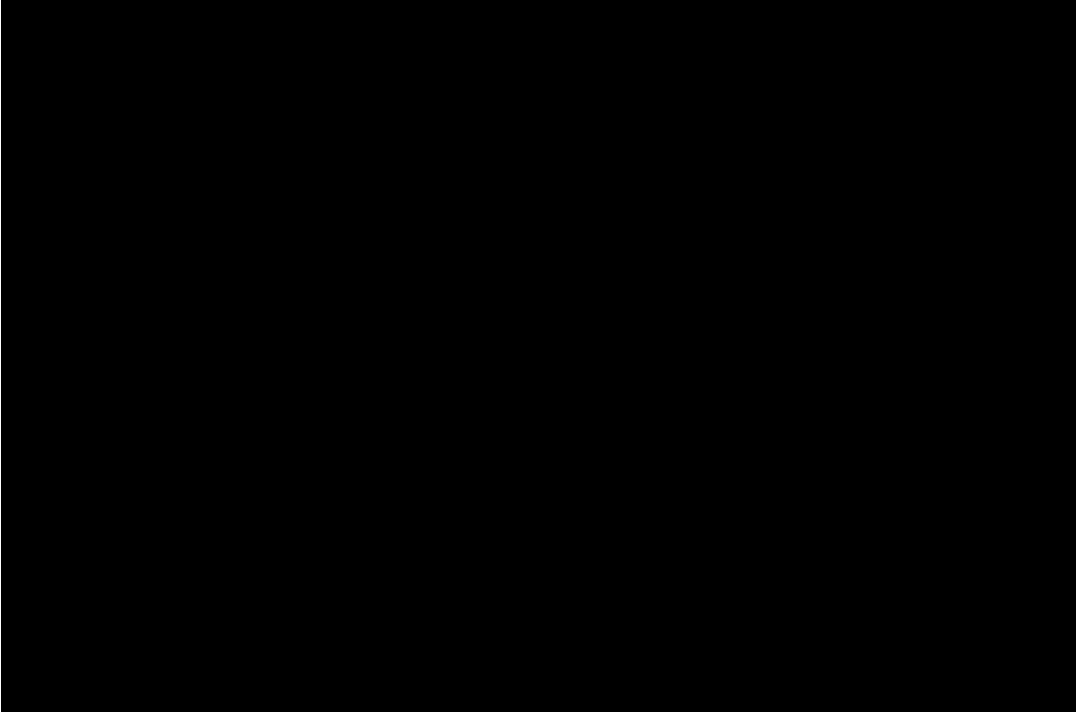
In future, I would ensure the conservation management plan (CMP) was completed before applying for the grant! The planning process was time-consuming, and we could have moved faster, sooner if the CMP had been approved in advance.

I would strongly encourage others to ensure their plans overall are solid before they apply for the grant, thus reducing stress and the need for amendments.

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	49,995.00	48,557.80	2.9%

Please provide a short narrative summary on project finances.

There is a small difference between projected expenditure and the actual spend, because we didn't proceed with the marketing video as planned. It was determined that the video would not be necessary as we provided many other marketing approaches that were successful in achieving our goal of informing the community.

We used local invasive species posts rather than half of the posts being treated timber.

Staff costs were greater than anticipated because our focus group, social media output and administration were more extensive than originally anticipated.

We also expected to generate some co-financing for the project but were unable to find the right partner.

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)

Unchecked	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

N/A

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

Checked	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

A new management plan was developed specifically for the project area and addresses long term management and was endorsed by Dr. Mark Outerbridge, Fresh Water Ecologist at the Department of the Environment and Natural Resources.

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

N/A

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

Checked	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

This project has resulted in approximately one acre of critically important mangrove and pond riparian habitat coming under sustainable management.

Section 5 - Project Partnerships, Wider Impacts and Contributions

Project Partnerships

CURB (Citizens Uprooting Racism in Bermuda): Working with CURB increased our reach and enabled us to foster stronger community relations particularly among demographics we have historically struggled to connect with. Their Executive Director acted as a facilitator for our focus group and carried out investigations that resulted in changes to our signage at the reserve.

DENR (Bermuda Government Department of the Environment and Natural Resources): We couldn't have done it without the help of the Bermuda Government team who showed strong support for this project right up to the

ministerial level. DENR helped in assessing the site, provided expert knowledge on restoration of freshwater habitats and provided a letter of support when we submitted our conservation management plan that certainly helped move things along more expeditiously.

Wider Impacts and Decision Making

This project has moved our organisation to start water quality testing at all our ponds and should result in better understanding around the state of our fresh and brackish water habitats.

Sustainability and Legacy

The ongoing benefits are those that an increase in biodiversity provide. There is also the long-term increase in carbon sequestering that will result from enabling the Black mangroves – existing and seedling – on site to flourish. The increase in the number of trees at the site will also increase carbon sequestering. The rise in biodiversity will enhance sustainability.


Section 6 - Communications & Publicity


Exceptional Outcomes and Achievements


The most exciting outcome was the response from the community. There was so much diversity in the support provided for this project. People of all ages and backgrounds shared support, planted trees and provided feedback through various avenues.


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.


 [Community members planting trees at Spittal Pond to help protect the pond DPLR11083](#)


 29/02/2024


 22:56:19


 jpg 727.04 KB


 [New signage at Portuguese Rock 2024 DPLR11083](#)


 29/02/2024


 22:49:29

 png 391 KB

 [Spittal Pond fence, ditch and berm construction 2024 DPLR11083](#)

 29/02/2024

 22:43:48

 jpg 1.46 MB

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

1 This photo shows the development of the ditch and berm constructed to stop cattle slurry finding it was to Spittal Pond. The fence post being installed will stop cattle from accessing the pond and is made of invasive Allspice trees harvested from Sherwin Nature Reserve in Warwick, Bermuda.

2 This photo shows the new sign developed to appease community concern about one of the first landing sights of humans in Bermuda. Many in the community were concerned that we had not told the full story. The Darwin Grant allowed us to build a focus group to investigate and discuss this culturally important site. The outcome was

a stronger understanding of Portuguese and African cultural in Bermuda and stronger relations in the community.

3 This photo shows community members planting at Spittal Pond. It was great to have so many families join in the effort to preserve and protect our natural heritage.

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.



Bermuda National Trust Facebook and Instagram

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	DPLR1\1083 Pollution and invasive species management, Spittal Pond Nature Reserve
Role within Darwin Plus Project	Project Lead
Email	
Phone	
Do you need further sections to provide additional contact details?	<input checked="" type="radio"/> No
