DPLR3\1060

Darwin Plus Local - Final Report (1)

Officer: Linzi Ogden

Section 1 - Darwin Plus Local Project Information (Essential)

Project Reference Number

DPL00081

Q1. Project Title

No Response

Overseas Territory(ies)

☑ Sovereign Base Areas of Akrotiri and Dhekelia (on Cyprus)

Lead Organisation or Individual

Enalia Physis Environmental Research Centre

Partner Organisation(s)

UK Centre for Ecology & Hydrology Joint Services Health Unit Cyprus, Sovereign Base Areas in Cyprus

Value of Darwin Plus Local Grant Award

£49,200.00

Project Start Date

01 April 2024

Project End Date

31 March 2025

Project Leader Name

Chara Apostolidou

Project Website/Twitter/Blog etc.

https://martinoulab.weebly.com/environmental-education-and-raising-awareness.html

Report Author(s)

Chara Apostolidou, Ioanna Angelidou, Kelly Martinou, Marios Papageorgiou

Report Date

30 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

The project successfully increased awareness and understanding of pollinators among children, teachers, and the general public. Educational tools, including bilingual fairy tales and the interactive floor game, were employed in schools and workshops with positive feedback from students and citizens. Data collected through citizen science apps will support a national pollinator database. The project achieved its goals: tools were widely distributed, schools were engaged, and a total of over 800 records of pollinators being submitted. Feedback received helped us refine our stories and plan meaningful events to support long-term biodiversity monitoring and conservation efforts.
1) Recording pollinators in roads margins and at other areas (e.g. forest, agriculture areas). Information collected using the POMS-Ký (Pollinators Monitoring Scheme of Kýpros) and FIT (Flower Insect Timed) Count application. In total, 833 specimens were collected across Cyprus.
2) Participation at events, COST action and conference:
• 12/5/2024 - “Akrotiri Spring Festival” event, organized by the Akrotiri Environmental Education Centre (AEEC)
• 26-28/6/2024 - at the first Management Committee meeting of the Cost Action Insect AI

• 2/2/2025 - “Akrotiri wetlands – a hidden paradise” event, organized by the AEEC.
• 10-12/9/2024 – Online participation at Entomological Conference ENTO24 at the University of Liverpool.
3) Demonstration and used FIT Count application:
• Educational outreach activities included FIT Count demonstrations and hands-on exercises with students. On 10/4/2024, we hosted 28 students and 3 teachers from Grammar School Limassol at the AEEC. On 16/3/2025, 30 students and 2 professors from the University of Cyprus participated in a similar workshop, using FIT Count and iNaturalist, followed by plant and insect identification and completion a questionnaire.
4) 2 workshops were organized to inform stakeholders from the SBAs and the Republic of Cyprus regarding:
• Bioblitz (24-26/5/2024) event
• Drivers of change, One Health and One Biosecurity at the Akrotiri Peninsula, 17-18 February 2025
5) A floor game, called the Pollen Rollers, was created as an educational tool to increase children's awareness of pollinators. The game consists of a board, 60 easy and difficult questions, a dice and an instruction booklet. The game is available at the Cape Educational Environmental Centre and on the website https://martinoulab.weebly.com/the-pollen-rollers.html.
6) Three educational fairy tales were written in both Greek and English regarding the books were distributed at different events and to the schools visited. The fairy tales are also available online for free at https://enaliaphysis.org.cy/2025/04/29/3794/. The title of the three fairy tales are shown below:
• Louminitsa the ladybird and the farmer.
• Bella, the curious little bee.
• Achilles the young explorer discovers the wonderful world of insects.
7) Schools visits and dissemination of the educational tools
• On 24/2/2025 I visited the primary school of Tseri where I narrated the fairy tales to a total of 101 children. All the children answered a questionnaire at the end according to the story they heard.
• On 14/3/2025 I visited the private nursery “Paidikos Galaxias” (24 children in total). On 20/3/2025, I visited the Akrotiri public kindergarten (24 children in total).

Supporting Evidence - file(s) upload

DPL00081_some_slide_from_presentation
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DPL00081_RESULT_INATURALIST
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DPL00081_Questionnairesforfairytales
30/04/2025
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pdf 339.42 KB

DPL00081_Booklet_Answers_Instructios
30/04/2025
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DPL00081_GAME_POLLEN_ROLLES
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DPL00081_POMPS-KY_RESULTS
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DPL00081_Achilles the young explorer discovers the wonderful world of insects_COVER
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DPL00081_Bella, the curious little bee_Cover
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DPL00081_resultquestionaire_fairytales
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DPL00081_Louminitsa the ladybird and the farmer_Cover
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Supporting Evidence - links to published document/online materials

Educational tools
1. Louminitsa the ladybird and the farmer
2. Bella, the curious little bee
3. Achilles the young explorer, discovers the wonderful world of insects.
4. Questionnaires for each fairy tale
5. The Pollen Rollers- one floor- game with questions on pollinating insects.
6. Booklet with game instructions and the 60 questions and answers.
7. Presentation before the Pollen Rollers

Research outcomes
8. Results from POMS-KY
9. Results from iNaturalist (more information in the file).

School visits
10. In total, three different schools were visited and 149 kids were educated.
Primary school of Tseri
• 45 children (6-7 age)
• 36 children (7-8 age)
• 20 children (8-9 age)
The private nursery “Paidikos Galaxias”

• 24 children (3-4 age)
Akrotiri public kindergarten
• 24 children (5-6 age)
Activity: narrated the three educational tales

Questionnaires- result: (upload file)

On the basis of this result:
A proposal was submitted to the Ministry of Education, with the assistance of Enalia Physis' educational team, requesting authorization to incorporate our educational materials into the primary school's curriculum. The proposal delineated the objectives of the project, emphasizing the importance of raising awareness of pollinators and beneficial insects among students. It included descriptions of the educational tools we developed - such as the three-fairy tales and the interactive floor game. Once approved, we plan to expand our visits to more public schools, using our educational tools to promote environmental literacy among students.

Project Challenges

1. Due to the official requirement for permission from the Ministry of Education to access public primary schools, there was a slight delay in achieving the project's initial goals. To address this, I approached more flexible institutions, including private schools. While some schools declined visits until formal authorization is received, all necessary steps for securing official approval have now been completed. Once granted, I plan to expand activities to additional schools, delivering storytelling sessions and introducing the educational tool to raise awareness about pollinators and beneficial insects.
2. Although the fairy tales and floor game are powerful tools for fostering empathy and environmental awareness, there is a risk they may be perceived as one-off activities. To ensure long-term impact, I aim to integrate these educational tools into the national curriculum. This would ensure that future generations have continuous access to pollinator-related education, supporting long-term conservation goals in Cyprus.
3. The editing and illustration process for the fairy tales took longer than anticipated, resulting in their release in February 2025 instead of June 2024. The stories have now been distributed to all schools visited and at various outreach events. They are also available online through our project website and on the Vector Ecology & Applied Entomology site for broader public access:https://enaliaphysis.org.cy/2025/04/29/3794/. I will continue to promote these materials and have also provided copies to the Enalia Physis Environmental Research Centre for distribution during their educational school visits.

Lessons Learned

i) The use of creative, child-friendly educational tools—such as fairy tales and the Pollen Roller game—proved highly effective in engaging students and sparking interest in pollinators. Storytelling encouraged empathy and curiosity, while the interactive game supported teamwork and learning. Collaborations with experienced educators and environmental centres improved the quality of outreach. Additionally, building on the expertise gained from previous Darwin Plus projects and working with Enalia Physis Environmental Research Centre greatly enhanced the project's effectiveness and impact.
ii) The process of illustrating and publishing the fairy tales was more time-consuming than expected, which underlines the need for more realistic planning when working with external partners. This delay, however, affected the securing of official permission from the Ministry of Education, delaying access to public schools. Although the approach continued with public schools gaining us access, this affected the initial project schedule.
iii) I would initiate the approval process with the Ministry earlier and allocate more time for content development and review stages. I would also build in buffer periods for delays and plan parallel activities that could continue while waiting for approvals or deliverables.
iv) Start administrative and approval processes early. Develop flexible timelines that allow for delays. Collaborate with experienced partners who understand the local context. Most importantly, create engaging, inclusive

materials that can be adapted for different educational settings and shared widely to extend project reach and impact.

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	[redacted]			
Consultancy Costs				
Overhead Costs				
Travel and Subsistence				
Operating Costs				
Capital Items				
Others				
Total	49,200.00	49,200.00	0	

Please provide a short narrative summary on project finances.

Travel and subsistence:
a. We covered travel expenses (airplane tickets, taxi, rental cars, parking), accommodation and daily expenses for international experts, coffee breaks and some meals for the local stakeholders who participated also at the workshop.
Operating Costs:
a. Educational fairy tales – The illustration and printing of three storybooks were completed by a local publishing house in both Greek and English. A total of 1,000 copies of each book were printed, amounting to 3,000

storybooks in total.
b. Floor game - Creation, design and illustration of an educational floor game with 60 questions and answers about pollinators and beneficial insects, also a booklet was created with all the information about the game and the answers. We have two sets of the game one for the AEEC and one to take with us to primary schools.
c. School Entry Permit – An educator drafted and edited the proposal submitted to the Ministry of Education, Sport, and Youth for the integration of the program into the school curriculum.

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

A total of 59 individuals completed structured training, including 47 participants in the “Drivers of Change, One Health and One Biosecurity” workshop, from various government departments, NGOs, and universities. Additionally, 12 teachers and environmental educators from local schools and universities were trained on pollinators, beneficial insects, and educational materials.

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

Approximately, 406 local community members, including teachers, parents, and children, participated in targeted programmes and events to increase empathy and knowledge about beneficial insects and pollinators. Activities included interactive workshops, educational sessions, and storytelling, significantly boosting environmental awareness and fostering a deeper connection with nature within the community.

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

Checked	**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

Three children's stories about beneficial insects and pollinators were completed, available in Greek and English. In addition, the floor game "Pollen Roller" has been developed, also in both languages. These educational tools were presented to primary school children and at events, raising awareness about pollinators and supporting environmental education efforts.

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.**
Checked	**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

406 members of the local community, including teachers, parents and children, participated in educational activities to raise awareness about pollinators and beneficial insects. These initiatives contribute to environmental education and encourage sustainable practices. These efforts will continue in schools and at various events in the future.

Section 5 - Project Partnerships, Wider Impacts and Contributions

Project Partnerships

i) Partners' roles:
• Schools and teachers helped to implement the training material in classrooms, facilitating student engagement.
• The Ministry of Education will consider the proposal to integrate the pollinator training material into the national curriculum, ensuring the long-term impact of the project.
• Environmental organisations and technical experts provided valuable expertise, contributing to the creation of the pollinator database and offering ideas for the educational content.
ii) Government Involvement:
While the Government of Cyprus was not directly involved in implementation, we submitted a proposal to the Ministry of Education to incorporate the educational materials into the national curriculum. This would ensure the continued impact of the project across schools and Environmental Education Centre in the SBAs and the Republic of Cyprus.
iii) Achievements, Lessons, Strengths, and Challenges
A major achievement of the project was the successful creation of educational tools, such as stories, game, and citizen science events, that have been well received by children and teachers. One challenge faced was ensuring the materials met the standards of the Ministry of Education, Sport, and Youth (Republic of Cyprus), which was addressed through collaboration with educators. A key lesson learned was the importance of early engagement with stakeholders to refine the materials and ensure their relevance.
iv) Involvement of Non-Formal Partners:
Local communities and volunteers played an essential role in data collection through FIT Count and iNaturalist. Their involvement helped ground the project in local knowledge, ensuring community engagement and the success of the citizen science activities.

Wider Impacts and Decision Making

N/A

Sustainability and Legacy

The project has created long-lasting benefits through the development of educational materials, including three bilingual fairy tales, the Pollen Roller game, and a growing database of pollinators. Copies of the fairy tales were donated to the libraries of visited schools, providing teachers and students with valuable resources for classroom use. Additionally, all materials are available at the Akrotiri Environmental Education Centre (AEEC) for educators and visitors.
A proposal has been submitted to the Ministry of Education, Sport, and Youth for the integration of these resources into the national curriculum. If approved, the project's legacy will expand to reach thousands of students across the Sovereign Base Areas (SBAs) and the Republic of Cyprus.
Following the Drivers of Change, One Health and One Biosecurity workshop at Akrotiri in February 2025, a new collaboration was established with Ohio University (USA), where the Pollen Roller game will be incorporated into a summer research project assessing public knowledge of pollinators.
Data collected using the FIT Count and iNaturalist apps will contribute to a national pollinator database. This ongoing research will support studies on the impact of urbanisation on pollinator populations, with findings intended for publication in scientific journals.
Questionnaires completed by participating children provided valuable feedback to evaluate and refine our educational approach.
Although the Darwin Plus Local funding has ended, project staff will continue engaging with schools, participating in public events, and sustaining partnerships to ensure that outreach on pollinators and beneficial insects continues.

Section 6 - Communications & Publicity

Exceptional Outcomes and Achievements

This project achieved exceptional success in building environmental awareness and engaging the public—particularly children—in the protection of pollinators and beneficial insects across Cyprus. By combining science, education, and creativity, the initiative reached hundreds of students, educators, and community members through innovative, bilingual educational tools and interactive learning experiences.
A key achievement was the creation and dissemination of three beautifully illustrated fairy tales, written in both Greek and English, which introduce young readers to the roles and importance of pollinators through engaging characters and simple conservation messages. These stories, available in both printed and digital formats, were distributed to schools, shared at public events, and made freely accessible online (https://enaliaphysis.org.cy/2025/04/29/3794/). This creative approach helped build empathy, curiosity, and understanding among children about biodiversity and insect conservation.
Another highlight was the development of The Pollen Roller, a custom-designed educational floor game inspired by classic board games. Featuring 60 pollinator-themed questions of varying difficulty, the game has been a hit during workshops, encouraging group learning and reinforcing key environmental messages in a playful way.

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.

DPL00081_WetlandOfAkrotiri_020225
30/04/2025
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DPL00081_UCY_BiologyStudents_Akrotiri
30/04/2025
11:20:53
png 4.27 MB

DPL00081_Bioblitz_Akrotiri_240524
30/04/2025
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DPL00081_Schoolsvisits
30/04/2025
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png 3.25 MB

DPL00081_GrammarSchool_Visit
30/04/2025
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DPL00081_Drivers of change, One Health and One Biosecurity at the Akrotiri Peninsula
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DPL00081_AkrotiriSpringFestival_120524
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DPL00081_PosterforENTO24
30/04/2025
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pdf 419.89 KB

DPL00081_Questionnaresforpresentation
30/04/2025
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pdf 200.61 KB

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

1. Filename: DPL00081_AkrotiriSpringFestival_120524
Caption: At the Akrotiri Spring Festival on May 12, 2024, informing visitors, especially children, about pollinators and beneficial insects.
Location: Akrotiri Environmental Education Centre, Cyprus

2. Filename: DPL00081_Bioblitz_Akrotiri_240524
Caption: The Bioblitz event held at Akrotiri from May 24-26, 2024, where visitors participated in recording insects, plants, and other animals with the help of the iNaturalist app.
Location: Akrotiri Environmental Education Centre, Cyprus

3. Filename: DPL00081_PosterforENTO24
Caption: 10-12/9/2024 – Online participation at Entomological Conference ENTO24 at the University of Liverpool.

4. Filename: DPL00081_Schoolsvisits
Caption: Reading one of my storybooks to primary school students in Nicosia, raising awareness about pollinators and beneficial insects.

5. Filename: DPL00081_WetlandOfAkrotiri_020225
Caption: The "Wetland of Akrotiri" event held on February 2, 2025, where visitors had the opportunity to learn about pollinators and beneficial insects and play the interactive floor game, Pollen Roller.
Location: Akrotiri Environmental Education Centre, Cyprus

6. Filename: DPL00081_Drivers of change, One Health and One Biosecurity at the Akrotiri Peninsula
Caption: Presentation of my project at the "Drivers of Change, One Health, and One Biosecurity" event held at the Akrotiri Environmental Education Centre on February 17-18, 2025. Participants also played the educational game, and my storybooks were distributed.
Location: Akrotiri Environmental Education Centre, Cyprus

7. Filename: DPL00081_UCY_BiologyStudents_Akrotiri
Caption: Students from the University of Cyprus Biology Department visiting Akrotiri, participating in POMS-KY activities with the help of the FIT Count app and iNaturalist to record pollinators and beneficial insects.
Location: Akrotiri, Cyprus

8. Filename: DPL00081_GrammarSchool_Visit
Caption: Students from the Grammar School in Limassol visiting Akrotiri, participating in POMS-KY activities with the help of the FIT Count app and iNaturalist to record pollinators and beneficial insects.
Location: Akrotiri Environmental Education Centre, Cyprus

9. Filename: DPL00081_Questionnairesforpresentation
Caption: Students will be required to respond to the initial questionnaire prior to the presentation on pollinators and beneficial insects. This will be followed by a second questionnaire post-presentation, the purpose of which is to ascertain whether the students have acquired new knowledge. Thereafter, they will participate in the 'Pollen Rollers' game.

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.

https://martinoulab.weebly.com
https://enaliaphysis.org.cy/2025/04/29/3794/
Facebook: https://www.facebook.com/Enaliaphysis
Instagram: https://www.instagram.com/enaliaphysis/
LinkedIn: https://cy.linkedin.com/company/enalia-physis-environmental-research-centre
Twitter: https://x.com/enaliaphysis

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	Chara Apostolidou (CA), Ioanna Angelidou (IA), Angeliki Martinou (AM), Marios
Role within Darwin Plus Project	CA: Project manager, IA: Assistant manager, AM: Supervisor, MP: Financial
Email	[redacted]
Phone	
Do you need further sections to provide additional contact details?	⦿ No