

# DPLR3\1061

Darwin Plus Local - Final Report (1)

Officer: Linzi Ogden

## Section 1 - Darwin Plus Local Project Information (Essential)

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### Project Reference Number

DPL00082

### 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)

No other partner

### Value of Darwin Plus Local Grant Award

£50,000.00

### Project Start Date

01 April 2024

### Project End Date

31 March 2025

### Project Leader Name

Carlos Jimenez

### Project Website/Twitter/Blog etc.

<https://enaliaphysis.org.cy/>

### Report Author(s)

Report Date

17 April 2025

Project Summary

No Response

Project Outcomes

Checked	<b>Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;</b>
Unchecked	<b>Climate Change: responding to, mitigating and adapting to climate change and its effects on the natural environment and local communities;</b>
Checked	<b>Environmental quality: improving the condition and protection of the natural environment;</b>
Checked	<b>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.</b>

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

The original objectives and outcomes of the project were successfully achieved. Before this project, there was no information on the distribution and state of the ghost nets in the Jubilee Shoals area or about the biodiversity fouling the nets, and most importantly, how the nets were affecting the biodiversity of the shoals. After nets were located during the first surveys and their associated biodiversity documented (Supporting Material, SM1), a database with this information was created and used for the application of an index (Removal Index, RI) to assist in the selection of nets (or sections of the nets) to be removed. The database (SM2) will be shared with the SBA Environmental Centre and the national authorities (Department of Fisheries and Marine Research, DFMR).

The implementation of the RI is one of the important and novel outcomes of the project and it is highly relevant for environmental management. To the best of our knowledge, this was the first time in Cyprus and in the Eastern Mediterranean as well, that a removal of ghost nets was done evidence-based, that is, with information about associated biodiversity and using the RI (SM3). The decision to remove the nets that posed the higher

impact to the biodiversity and endangered human activities (i.e., diving) was assisted by the RI. This approach differs from the traditional “search and remove” without taking in account the effect of the removal on the very same habitats that are intended to be protected in the first instance.

Ghost nets were an eerie feature of the shoals’ seascape before the project. Now, about 3km (ca 500kg) of the most dangerous ghost nets affecting the coralligenous communities and the epibenthic biodiversity in general were removed from the shoals (SM4).





The training and education of a student in the project was successful. The student, who participated also in the previous D+L project (SM5), learnt about the need to use the RI, how to implement it, and how to disseminate this knowledge. Worth to mention is the important contribution of the student to improve methods and logistics. The results are going to be included in a peer-reviewed publication in a scientific journal of the project’s results; the manuscript is currently being prepared to be submitted to the journal (SM3).

The outreach of the project disseminating the concept of evidence-based removals was successful and palpable during the presentations/meetings (SM6). The participants (divers, students, SBA Environmental Centre, SBA personnel, and national authorities represented by the DFMR) expressed their support for the method and their interest to see it implemented at the national scale.





It was very gratifying to have the engagement of local stakeholders with the D+L project. Motivated by our presentations and field surveys, the local dive centre (Pissouri Bay Divers) removed abandoned fishing gear in shallow areas of the shoals utilizing their own resources (SM6). The local municipality of Pissouri was also very helpful with the disposal of the nets every time they were brought to shore (SM4).

## Supporting Evidence - file(s) upload

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 [Proof of Enrolment student VResaikos](#)  
 28/04/2025  
 12:01:12  
 pdf 802.96 KB

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 [DPL-Risk Assessment & Mitigation Measures-Ghost Nets Project](#)  
 28/04/2025  
 12:00:52  
 pdf 154.42 KB

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 [Darwin-Plus-Local-Report-Supporting Material-GHOST NETS](#)  
 28/04/2025  
 12:00:24  
 pdf 2.83 MB

## Supporting Evidence - links to published document/online materials

Supporting evidence is provided in the uploaded documents:  
“Darwin-Plus-Local-Report-Supporting Material-GHOST NETS.pdf”  
“DPL-Risk Assessment & Mitigation Measures-Ghost Nets Project.pdf”  
“Proof of Enrolment\_student\_VResaikos.pdf”

Other links:

Data Base of biodiversity associated to the nets and Removal Index calculations (READ-ONLY):

[REDACTED]  
[REDACTED]

## Project Challenges

The Jubilee Shoals are a magnificent geological singularity that makes of the diving in the area an unforgettable experience, although a challenging one. For example, the shoals’ exposure to oceanic conditions and the high-risk to divers of the massive ghost nets and other abandoned fishing gear, were the project’s main challenges to deal with.

Building on the experience gained in the first project ((DPL00041, 2023-2024), a systematic diving survey of the ghost nets along the shoals (ca 1.3km long, from 17m to 55m depth), had to follow safety measures and technical and rebreather diving procedures.

The underwater activities consisted of (i) early dives (before 07:00 every day), that (ii) allowed long decompression times (1-2hrs), (iii) long surface intervals between every day of work (ca. 18hrs), (iv) one full day of rest in the middle of the surveys for the two team of divers; a (v) risk assessment and mitigation measures plan was in place and submitted to the SAB authorities (uploaded).

The high level of experience of the certified divers ensured a careful, safety-first approach to handle the ghost nets, avoiding unnecessary risks like divers' entanglement with the nets.

Following this protocol, the total time of diving was 174 hrs (four research divers), which is a significant effort to achieve the goals of the project.

## Lessons Learned

The project worked well and it was mostly because the participants were highly experienced in diving and underwater research techniques. As mentioned in the previous section, the nature of the work underwater and in the conditions experienced at the Jubilee Shoals, are inherently challenging. Technical issues and external factors, such as the weather conditions, can be determinant and negatively affect the work. Experience with this kind of projects and capacity to adapt to unexpected situations were shared by the participants in the project and by the staff of Enalia (our organization). For example, contingency measures, such as extended days of field-work and additional/substitute highly-trained divers, were in place.

A lesson learned is that additional personnel is needed at the beach. There are no permanent docking facilities in Pissouri Bay and in consequence, the daily cargo of removed nets had to be downloaded from the vessel directly into the water and taken to high ground on the beach. Literally, all-hands-on-deck were needed for this activity; additional participants would have eased the effort of downloading and speeding the transfer of the nets to the beach and to the vehicles.

## 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			
<b>Total</b>	50,000.00	50,202.12	0.4

## Please provide a short narrative summary on project finances.

All the expenses were according to the original budget, and when the estimated amount was exceeded, the difference was covered by ENALIA. This happened in the budget line TRAVEL AND SUBSISTENCE. The purchase of groceries and food during the fieldwork in 2024 was more expensive than what was calculated at the time of submitting the proposal in November 2023 (8.2% variance).

The overall percentage of change in the project's total budget was

## 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.

Checked	<b>DPLUS-A04: Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training.</b>
Unchecked	<b>DPLUS-A05: Number of trainers trained reporting to have delivered further training by the end of the project.</b>

## Group A Indicator Results

ONE (man) MSc student was trained in the project on new techniques for the evaluation of the Ghost Nets and also applied research methods from the previous D+L project. TWO (men) and THREE (women) young professionals also learned about the project methods and implementation during their participation in the fieldwork.

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

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

## Group B Indicator Results

If understood correctly, THREE (women) and TWO (men) from the local dive centre engaged in citizen actions by participating in the removals organized by them. Photos of that activity in Supp. Material.

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

Unchecked	<b>DPLUS-C01: Number of best practice guides and knowledge products published and endorsed.</b>
Unchecked	<b>DPLUS-C02: Number of new conservation or species stock assessments published.</b>

Checked	<b>DPLUS-C03: New assessments of habitat conservation action needs published.</b>
Unchecked	<b>DPLUS-C04: New assessments of community use of biodiversity resources published.</b>
Unchecked	<b>DPLUS-C05: Number of projects contributing data, insights, and case studies to national Multilateral Environmental Agreements (MEAs) related reporting processes and calls for evidence.</b>

## Group C Indicator Results

ONE new assessment has been carried out at Jubilee Shoals. The assessment contemplates the ghost nets distribution along the shoals, the associated biodiversity to the nets and the removal actions. The assessment will be published in a scientific journal but also as infographics. Baseline is available.

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

Unchecked	<b>DPLUS-D01 Hectares of habitat under sustainable management practices.</b>
Unchecked	<b>DPLUS-D02: Number of people whose disaster/climate resilience has been improved.</b>
Unchecked	<b>DPLUS-D03: Number of policies with biodiversity provisions that have been enacted or amended.</b>

## Group D Indicator Results

Not applicable.

## Section 5 - Project Partnerships, Wider Impacts and Contributions

### Project Partnerships

The Government of the Territory was not directly involved in this project as an official partner. However, it is important to highlight the supportive role throughout the first and not this project of the SBA Environment Department. Since the writing of the proposal, the SBA Environment Department provided important advice, suggestions and information about the shoals. Their availability to meet and provide feed-back has been always very useful and it is greatly appreciated.

The enthusiastic involvement of other stakeholders not formally partners in the project is one of the gratifying achievements. Local divers and the dive centre at Pissouri Bay, participated in the kick-off meeting of the project and provided support for the surveys to locate ghost nets in the shoal's area. Soon after, they manifested their interest to contribute (with their own means) to the project by removing ghost nets that were recently abandoned or lost and were still catching and killing marine life, including sea turtles. After consultation with us, these removals successfully eliminated most of the killing nets from the shallows of the shoals.

The local Municipality of Pissouri also contributed to the project by collecting and disposing in designated facilities the hundredths of meters of nets that the project removed from the shoals. The nets were old and the

plastic too deteriorated and encrusted that any attempt to recycle was not feasible.

In the Supporting Material section, we provide graphic information of the removal activities performed by the local stakeholder.

## Wider Impacts and Decision Making

At the time of writing the report, we are in the process of sharing the methods and results of the project with stakeholders. The data is already available for the SBA Environment Department and national authorities (DFMR), who are aware of the project's outcomes. As end-users directly related to the management and protection of the Jubilee Shoals (and marine habitats in general), they participated in the presentations and discussions and explicitly manifested their support for the method and the future use of it elsewhere in the country.

Additionally, during the last meetings of the project, we discussed with them how the method directly assists decision-making when dealing with abandoned fishing gear. It became clear now that decisions for the management of the pervasive problem of ghost nets can be taken evidence-based and not driven only by passion. Well intentioned removals of ghost nets have damaged the same habitats that supposedly are going to be protected. This has happened more often than not when old nets that function as habitat, that is, nets that are already harbouring established important species are removed.

In synthesis, the project results had a direct influence in decision-making when the nets to be managed (removed) were selected in the Jubilee Shoals study case, and will continue influencing the process now that managers and other stakeholders are aware of the method and its applicability.

## Sustainability and Legacy

The participants in the project as well as stakeholders not formally partners considered the project as an important contribution for a long-term cause to achieve the protection of the Jubilee Shoals. However, a three-pronged approach is needed for a lasting solution to the ghost nets problem: (i) the removal of dangerous ghost nets is an immediate tangible result that needs to be repeated, but the long-term benefits and continuity of the project's rationale will be achieved with (ii) the recognition by the decision makers of the practicality and relevance of the method, and (iii) through the education and interaction with the fishing sector (professional and recreational) visiting the shoals. This sector is the source of the nets in the first instance.

Through other on-going research projects, we continue with the three-pronged approach by collaborating and advising the local stakeholders in order to continue removing recently abandoned nets. Motivated by the success of their first experience, the divers aim to organize additional removals this year. Since we are in frequent communication with the SBA Environmental Centre and the national authorities (we are writing and submitting research proposals that include their feed-back), we will continue with the implementation and dissemination of the method to the fishing sector and other stakeholders. Lastly, we continue submitting proposals to secure funds to support these conservation actions.

## Section 6 - Communications & Publicity

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### Exceptional Outcomes and Achievements

Throughout the duration of the Darwin Plus Project DPL00082 – “Chasing Ghosts: Managing abandoned fishing gear in SBA Akrotiri, Cyprus”, we have developed a comprehensive suite of promotional materials aimed at raising awareness about the environmental issue of ghost nets and engaging the public in our conservation efforts.

These materials include a collection of photographs and videos specifically designed to communicate the urgency of the problem and the importance of our work. The imagery captures both the haunting presence of abandoned fishing gear on the seafloor and the vibrant marine life at risk due to their continued presence. To strengthen public connection with our mission, we have included powerful visual narratives featuring our dedicated team of divers in action, carefully locating and assessing ghost nets in the Jubilee Shoals.

Our videos serve a dual role: to inform and to inspire. They document the evidence-based methodology employed by the project — particularly the development and application of a “Removal Index” — which guides decisions on whether ghost nets should be removed, based on environmental risk and potential damage to colonizing species like sponges and corals. This approach moves beyond the traditional “search and remove” mindset and emphasizes thoughtful, science-led intervention to protect marine biodiversity.

By offering a behind-the-scenes look at our field operations, the promotional material allows viewers to better understand the complexity and challenges involved in managing ghost nets, and how these actions contribute to the resilience of Cyprus’s marine ecosystems, which are already under severe pressure from climate change and human activities.





Our aim through this outreach is not only to educate but also to foster a sense of collective responsibility. We seek to empower the public to support sustainable marine practices and to recognize the invisible threats, such as ghost nets, that continue to affect marine life long after being lost at sea.

Through engaging visuals, informative storytelling, and authentic depictions of conservation in action, our project invites everyone to become part of the solution — to help protect and restore the precious underwater habitats of the Jubilee Shoals and beyond.

## **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.**

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 [DPL00082-Jubilee Shoals project in a nutshell-SBAA-Cyprus-ENALIA](#)  
 29/04/2025  
 09:16:32  
 qt 9.99 MB





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 [DPL00082 -The removal is starting - SBAA-Cyprus - Perry Brandes-ENALIA](#)  
 23/04/2025  
 14:50:47  
 jpg 4.89 MB





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 [DPL00082 -The net falls like a curtain- SBAA-Cyprus - Perry Brandes-ENALIA](#)  
 23/04/2025  
 14:50:35  
 jpg 6.35 MB





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 [DPL00082 -The net embraces the reef- SBAA-Cyprus - Perry Brandes-ENALIA](#)  
 23/04/2025  
 14:50:13  
 jpg 6.7 MB





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 [DPL00082 -Recording the size of the net- SBAA-Cyprus - Perry Brandes-ENALIA](#)  
 23/04/2025  
 14:49:55  
 jpg 7.22 MB





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 [DPL00082 -Lift bag attached- SBAA-Cyprus - Perry Brandes-ENALIA](#)  
 23/04/2025  
 14:49:34  
 jpg 4.69 MB





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 [DPL00082 -Cutting the net- SBAA-Cyprus - Perry Brandes-ENALIA](#)  
 23/04/2025  
 14:49:15  
 jpg 4.97 MB

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 [DL00082 -The net becomes one with the ecosystem- SBAA-Cyprus - Perry Brandes-ENALIA](#)  
 23/04/2025  
 14:48:51  
 jpg 5.57 MB

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

DPL00082 -The removal is starting - SBAA-Cyprus - Perry Brandes-ENALIA.jpg  
The removal is starting from the reef of Jubilee Shoals.

DPL00082 -Recording the size of the net- SBAA-Cyprus - Perry Brandes-ENALIA.jpg Recording the size of the net in order to remove it from the reef of Jubilee Shoals.

DPL00082 -Lift bag attached- SBAA-Cyprus - Perry Brandes-ENALIA.jpg  
A lift bag attached to the net so it can float to the surface and be collected by the team on the boat.

DPL00082 -The net embraces the reef- SBAA-Cyprus - Perry Brandes-ENALIA.jpg  
The net embraces the reef and creates a unique ecosystem.

PL00082 -The net becomes one with the ecosystem- SBAA-Cyprus - Perry Brandes-ENALIA.jpg  
The net becomes part of the reef, one with the ecosystem.

DPL00082 -The net falls like a curtain- SBAA-Cyprus - Perry Brandes-ENALIA.jpg  
The net falls like a curtain and covers the walls of the reef.

DPL00082 -Cutting the net- SBAA-Cyprus - Perry Brandes-ENALIA.jpg  
Cutting the net to detach it from the walls of the reef so it can be carefully removed without damaging the existing ecosystem.

Video: DPL00082-Jubilee Shoals project in a nutshell-SBAA-Cyprus-ENALIA  
Video & text as it was posted on Instagram: <https://www.instagram.com/p/DI0SOAQNiFN/>

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.

Project page: <https://enaliaphysis.org.cy/2025/04/29/3782/>  
LinkedIn: <https://www.linkedin.com/company/enalia-physis-environmental-research-centre/>  
Facebook: <https://www.facebook.com/Enaliaphysis>  
Twitter: <https://twitter.com/enaliaphysis>  
Instagram: <https://www.instagram.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	Carlos Jimenez
Role within Darwin Plus Project	Project Leader
Email	
Phone	
Do you need further sections to provide additional contact details?	<input checked="" type="radio"/> Yes

### Additional Project Contact Details

Project Contact Name	Marios Papageorgiou
Role within Darwin Project	Principal Finance Contact
Email	
Phone	

**Do you need further sections to provide additional contact details?**

☒ No