Applicant: Martinou, Kelly Organisation: Enalia Physis Environmental Research

Funding Sought: £32,760.00

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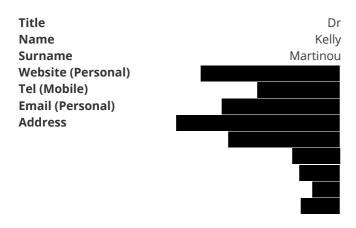
Conservation and awareness raising of the rare and endangered flora of the Red Flora Book of Cyprus and their pollinators, within the Sovereign Base Areas (SBA) of Akotiri, Cyprus

PRIMARY APPLICANT DETAILS

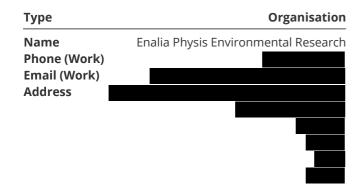


Section 1 - Contact Details

PRIMARY APPLICANT DETAILS



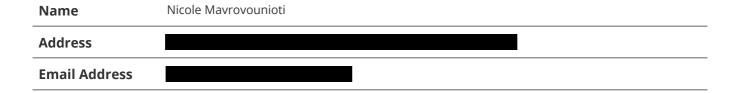
GMS ORGANISATION



Section 2 - Title, Dates & Budget Summary

Q3. Name and official address of proposed Darwin Plus Fellow

Include email details where available.



Q4. Summary of proposed Fellowship i.e. Outcome

Conservation and awareness raising of the rare and endangered flora of the Red Flora Book of Cyprus and their pollinators, within the Sovereign Base Areas (SBA) of Akotiri, Cyprus

Q5. Project dates

Start date:	End date:	Duration (e.g. 1 year, 2 months):
01 May 2022	30 April 2024	24

Q6. Budget summary

	2022/2023	2023/24	2024/2025	Total	
Darwin funding	14,285.00	16,880	1,595.00	£	
request (Apr - Mar)				32,760.00	

Section 3 - Principals

Q7. UKOT Involved

Q7a. Please state which UKOT (s) will be involved with the Fellowship?

British Sovereign Base Area (SBA) of Akotiri, Cyprus

Q7b. Have you included a letter of support from the relevant OT Government(s)?

Yes

Please provide a combined PDF of all letters of support

- ALL LOS
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- ① 11:27:52
- pdf 560.83 KB

Q8. Principals in the Fellowship

Please give the details of the individuals from the applicant and host organisations (and other institutions if relevant) who would be directly involved in supervising/working with the Darwin Plus Fellow.

Details	Project Leader	Other Expert	Other Expert	Other Expert
Surname	Martinou	Charilaou	Botham	No Response
Forename(s)	Angeliki (Kelly)	Panelis	Marc	No Response
Post held	Head Entomologist	Head SBAA Environment Department	Entomological Ecologist	No Response
Organisation	Enalia Physis & Joint Services Health Unit	Sovereign Base Areas Administration	UKCEH – UK Centre for Ecology and Hydrology, Wallingford	No Response



Do you require more fields?

No

Please provide a one page CV for each of these named individuals, including the Fellow named at Q3, uploaded as one PDF.

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- pdf 415.55 KB

Section 4 - Aims, Activities & Achivements

Q9. Describe briefly the aims, activities and achievements of the proposed Fellow's employing organisation.

Large institutions please note this should describe your unit or department.

Enalia Physis Environmental Research Centre (EPRC) is a Cyprus-based NGO established in 2009. It promotes environmental research and ecological awareness.

Joint Services Health Unit (JSHU) is a military unit established in 1968 with entomological and pest control expertise that runs the integrated vector management programme in the SBAs and overseas.

Akrotiri Environmental Education Centre (AEEC) main objectives are to offer environmental education, undertake and facilitate ecological research, and support environmental management of the Akrotiri Peninsula. Research focuses on critical environmental aspects within the SBAs (e.g. protected bird species and endangered plant species).

The UK Centre for Ecology and Hydrology (CEH) is a Centre of Excellence for terrestrial and freshwater ecosystems. UKCEH helps meet strategic research needs underpinning their ability to undertake world-class environmental science.

All partners will greatly benefit from the proposed fellowship and the consortium.

Q10. Describe briefly the proposed Fellow's current role within their organisation and what relevance this has to environmental management and/or climate change in the OTs.

Ms Mavrovounioti holds an MSc degree in Biodiversity and Conservation from Leeds University in UK and a BSc in Environmental Management from Northumbria University in UK.

In 2020 and 2021 she participated in several workshops regarding the importance of pollinators and their role held at AEEC and from 2011 to 2015 she has undertaken ecological surveys within the SBA of Akrotiri regarding several flora species of the Red Book of Cyprus.

Ms Mavrovounioti will work closely with members of the Akrotiri community and environment officers and staff of the SBAs in order to raise awareness regarding the importance of rare and endangered flora of the Red Flora Book of Cyprus and the diversity of their pollinators.

Section 5 - Outcomes & Objectives

Q11. Provide a concept note on the Fellowship. This should include:

Q11a. A clear outline of the aim and objectives of the Fellowship

Through this fellowship we will contribute to the conservation of rare and endangered flora of the Red Flora Book of Cyprus within the SBA of Akrotiri, Cyprus, raise the awareness regarding their importance and record the diversity of their pollinators.

The list of the target plants can be found below:

- Taraxacum aphrogenes
- · Coronilla repanda subsp. repanda
- Urtica membranacea
- · Ophrys kotschyi
- · Serapias parviflora subsp. parviflora
- · Lotus cytisoides
- · Isolepis cernua
- Convolvulus lineatus
- Cladium mariscus
- · Linum maritimum
- · Silene kotschyi
- Juncus maritimus
- · Centropodia forsskalii
- · Crepis pusilla
- · Ifloga spicata
- · Neurada procumbens
- · Salvia dominica
- · Stipagrostis lanata
- · Helianthemum kahiricum
- Juncus littoralis
- Triplachne nitens
- Cynanchum acutum
- Mentha aquatic
- Schoenoplectus tabernaemontani
- Euphorbia hirsuta

Research undertaken through the fellowship will:

- Establish a baseline of the distribution, population, reproduction biology and threats for each target plant
- Map the distribution of each plant
- Record and identify the diversity of pollinators of each of these plants
- Collect genetic material from these plants to be stored in appropriate banks
- Propose wider conservation measures and promote awareness of these plants
- Prepare seedlings of the target plants to offer to the public and organizations during the dissemination events

Results will be communicated to relevant stakeholders within SBAs and also widely across the Republic of Cyprus through public dissemination events and consider online events if COVID-19 restrictions prevail.

Q11b. The role of the applicant and/or host organisation, and others where relevant

The fellow will be responsible for undertaking research under the leadership of Dr Martinou (Head Entomologist, JSHU), Mr Charilaou (Head SBAA Environment Department) and Dr Botham (Ecologist and Scientist). The supervisors have strong experience in delivering Darwin Plus projects (DPlus 056 & D Plus 088 & supervision of Darwin Plus Fellows Joanna Angelidou, Jacovos Demetriou and Elli Tzirkalli). The supervisors will mentor Ms Mavrovounioti in order for her to gain leadership and management skills and ensure the success of the fellowship.

Dr Martinou is an expert in applied entomology, alien species and citizen science, Mr Charilaou is expert in botany and Dr Botham is an entomological ecologist experienced in citizen science and long-term monitoring of invertebrate populations.

Baseline data for the distribution, population and reproductive biology will be provided by the supervisors, literature and field surveys. Each plant will be mapped within the study area. The diversity of their pollinators will be recorded taking into

account the PoMS-KY methodology and existing data.

The storage of genetic material of the plants will be achieved in collaboration with the Department Forests of Cyprus.

Ms Mavrovounioti will use the applied entomology laboratory at JSHU for the identification of pollinators (at species level identification where possible). She will also use premises of AEEC, including the biology lab and the conference room for meetings and dissemination events. She will use the facilities of EPERC for a dissemination event.

The team will meet on a weekly basis for guidance, to assess progress and discuss next steps.

Finally, Ms Mavrovounioti will report on the outputs delivered throughout the project through scientific publications and presentations in conferences. Participants of the dissemination events will be provided with flower pots of the target plants.

Q11c. Where appropriate, how the Fellowship will contribute towards environment and/or climate change management in the OTs i.e. what the expected outcome of the Fellowship will be, with regard to the aim of Darwin Plus.

This innovative fellowship contributes to priority issues specifically addressing three issues: 1) Conservation of rare and endangered flora of the Red Flora Book of Cyprus 2) Promotion of botanic 3) Environmental education for the importance of significant flora and their pollinators. The results obtained will contribute towards Darwin priorities for round 10: (a) To increase the area of coverage, effectiveness and condition of protected areas in pursuit of global targets (b) The implementation of National Biodiversity or Environment Action Plans

The Red Flora Book of Cyprus contains endangered plants and it is a necessary tool for the elaboration of credible action plans for the conservation of the plants. The fellowship will contribute to the conservation of rare and endangered flora of the Red Flora Book of Cyprus, raise awareness regarding the importance of their pollinators and promote the research on their diversity, populations and reproductive biology.

The Fellow will ensure transfer of knowledge with reports from the fellowship made accessible to all OTs including specific guidance of methodology to identify the flora species and their pollinators, relevant to other regions.

The Fellowship will collaborate with SBAs of Cyprus focuses on delivering practical conservation work of rare and endangered flora. It will be very important for the SBAs administration and Environment department of Cyprus since it will provide continuity to the completed Darwin project for Akrotiri Marsh Restoration (REF:DPLUS034) and the current Darwin Project for habitat restoration and wise use for Akrotiri wetlands and Cape Pyla (Dhekelia) (REF:DPLUSS141). The findings and the methodological approaches could also be applied to other OTs in relation to flora species of similar biology.

Section 6 - Legacy & Collaboration

Q12. Legacy

Provide information on how the Fellow will utilise, promote and disseminate the benefits of the Fellowship on return to their UKOT. Will a strategy be developed during the Fellowship to ensure this is achieved?

The project plan includes a strategy to ensure the Fellow will utilise, promote and disseminate the outcomes of the fellowship. The results produced by the Fellow, will be widely disseminated through social media and Darwin Newsletters. The study will provide an effective way of raising awareness within the SBAs community and a priority will be to create resources for the public. The Fellow will lead two dissemination events at the AEEC and EPERC to report on her findings, promote the research on flora and their pollinators and encourage the continuation of the project.

The Fellow will work together with stakeholders including the SBAA Environment Department, Department of Forests and NGOs (EPERC) to propose targeted conservation actions. All relevant departments have been informed regarding this fellowship and strongly support it. Results will be used to enhance AEEC educational programmes on significant flora species found in Akrotiri Peninsula.

The Fellow will create online information sources to raise public awareness regarding the location of the target plants, the importance of their conservation and the diversity of their pollinators. Additionally, she will be guided by her

co-supervisors to deliver high quality publications in peer-reviewed and other journals to ensure wide accessibility.

Q13. Priorities

How will the Fellowship assist the OT's environmental priorities? Please refer to strategy papers, white papers or other materials as appropriate.

Akrotiri Peninsula is hosting one of the largest and ecologically complex ecosystems in Cyprus, supporting rare, vulnerable and endangered flora and fauna species.

The fellowship will address the threats of the target flora species hosted in SBA of Akrotiri, increase knowledge regarding their diversity, population and reproduction biology, raise awareness regarding the importance of their conversation and increase knowledge through the study of the diversity of their pollinators. Also, the Fellow will collect genetic material from the target plants to be stored in appropriate banks for further surveys.

The proposed work is in line with the Akrotiri Peninsula Environmental Management Plan https://sbaadministration.org /home/docs/eco/20121002_AKI_PEN_MGT_PLAN.pdf which identifies the need to conserve the rare and endangered plant species at Akrotiri Peninsula. It will also supplement and provide continuity to the Darwin Akrotiri Marsh, (REF:DPLUS034). The findings of this project and the methodological approaches could also be applied to other OTs in relation to flora species with similar biology.

Q14. Collaboration

What collaboration has there been with the proposed Fellow to date in developing the proposal, and what collaboration is planned for the duration of the Fellowship? Where relevant, describe any consultation or collaboration by the proposed Fellow within their own territory.

This proposal has been prepared by the Fellow in collaboration with the supervisory team. The concept was suggested/evolved collectively by the JSHU and the SBA Environment department (letter of support), who see this study as a necessity and will support it in kind.

Dr Martinou has co-led previous Darwin Plus projects "Addressing drivers of ecological change in Lake Akrotiri SBA, Cyprus" and "Invasive Non-Native Species leading to biodiversity loss across the SBA, Cyprus". Mr Charilaou has 25 years of experience in conservation, environmental policy and management and has worked on projects regarding the mapping of significant flora found in the SBAs Cyprus. Dr Botham has entomological expertise in methods to survey pollinator communities. He has also led the development of the Pollinator Monitoring Scheme – Kýpros (PoMS-KY) with Dr Martinou and other scientists.

Ms Mavrovounioti will engage with many stakeholders from the SBAs and the Republic of Cyprus, and collate information regarding the location of each of the target plants and the diversity of their pollinators. Ms Mavrovounioti has already established links with stakeholders and organisations including Officers from the Ministry of Education, Ministry of Agriculture, Rural Development and Environment, NGOs and citizens. She will maintain and expand these collaborations.

Q15. Where will the Fellow be based?

Please be specific with organisational details and dates (where more than one location).

Ms Mavrovounioti will involve collaboration among experts based at the JSHU (British Force Cyprus, Akrotiri Headquarters), EPERC, AEEC and UKCEH.

Ms Mavrovounioti will focus her studies on the SBA of Akrotiri. During the preparatory stage of the proposed fellowship and during the field work periods of the study, she will be based at the JSHU and AEEC as it is based in Akrotiri Peninsula. She will use the entomological and env. centre laboratory facilities. Field work expenses (e.g. car and petrol) are kindly covered by the AEEC. Fieldwork will be conducted during May 2022 to January 2024. Dr Botham will visit Cyprus during the fellowship to guide the Fellow with pollinator surveys.

Finally, Ms Mavrovounioti will be guided by her co-supervisors to deliver high quality peer reviewed and other publications (e.g. in journals such as Landscape Ecology and Sanctuary) and press releases to ensure wide accessibility. OT stakeholders

Section 7 - Programme of Work & Funding

Q16. Provide a programme of work, including key milestones, through the duration of the Fellowship

Please complete the Word template linked below to describe the intended workplan for your project.

Darwin Plus Fellowship Implementation Timetable Template

For each activity (add/remove rows as appropriate) indicate the number of months it will last, and shade only the quarters in which an activity will be carried out.

Once you have completed your implementation timetable please upload it as a PDF using the file upload tool below.

- AL (NM19122021)
- **i** 07/01/2022
- O 11:34:43
- pdf 394.89 KB

Q17. Costs

Using UK Government Financial Years (i.e. April 2021 – March 2022 etc.), please provide details of the costs associated with this Fellowship in the appropriate Darwin Plus spreadsheet.

Darwin Plus Budget Template

Please note, this should not be presented as academic years.

- <u>Budget-under-£100K-Dec21-Final-MASTER (NM19122</u> 021)
- 07701720
- O 10:20:18
- xlsx 34.99 KB

Section 8 - Certification

Certification

On behalf of the

Company

of

Enalia Physis Environmental Research Centre

I apply for a grant of



I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the fellowship schedule should this application be successful.

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)

• I have uploaded CVs for fellowship principals and letters of support.

Checked

Name	ANGELIKI MARTINOU	
Position in Organisation	Head Entomologist	
Signed	 	
Dated	07 January 2022	

Section 9 - Submission Checklist

I have read the Guidance documents, including the "Guidance Notes for Applicants" and "Finance Guidance".	Checked
I have read, and can meet, the current Terms and Conditions for this fund.	Checked
I have provided actual start and end dates for my project.	Checked
I have provided a budget based on UK government financial years i.e. 1 April – 31 March and in GBP.	Checked
The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have checked the Darwin Plus website immediately prior to submission to ensure there are no late updates.	Checked
I have provided the relevant letters of support and CVs with this application.	Checked
I have read and understood the Privacy Notice on the Darwin Plus website.	Checked

We would like to keep in touch!

Please check this box if you would be happy for the lead applicant (Flexi-Grant Account Holder) and project leader (if different) to be added to our mailing list. Through our mailing list we share updates on upcoming and current application rounds under the Darwin Initiative, Darwin Plus and our sister grant scheme, the IWT Challenge Fund. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share our quarterly project newsletter. You are free to unsubscribe at any time.

Checked

Data protection and use of personal data

Information supplied in the application form, including personal data, will be used by Defra as set out in the Privacy Notice, available from the Forms and Guidance Portal.

This **Privacy Notice must be provided to all individuals** whose personal data is supplied in the application form. Some information may be used when publicising Darwin Plus including project details (usually title, lead partner, project leader, location, and total grant value).