



Department
for Environment
Food & Rural Affairs



**Darwin Initiative/D+ Project
Half Year Report
(due 31st October 2019)**

Project reference	DPLUS088
Project title	Addressing drivers of ecological change in Lake Akrotiri SBA, Cyprus
Country(ies)/territory(ies)	Akrotiri SBA, Cyprus
Lead organisation	Centre for Ecology and Hydrology
Partner(s)	Joint Services Health Unit Akrotiri Environmental Education Centre
Project leader	Helen Roy and Jodey Peyton
Report date and number (e.g. HYR3)	HYR1, 31 st October 2019
Project website/blog/social media etc.	www.ris-ky.eu Researching Invasive Species of Kýpros @RiskýAliens



1. Outline progress over the last 6 months (April – Sept) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up to end September).

The project focuses on monitoring and understanding drivers of change in the Akrotiri wetlands, Cyprus. We will use remote sensing, on-the-ground measurements of water quality and vegetation, and assess community interactions between native and non-native species including mosquitoes. We will establish baselines and procedures for evaluating the health of this highly-valued wetland. All tasks will be underpinned by capacity-building and public engagement, ultimately providing long-term species and environmental data as an evidence-base for the SBAs and wider Cyprus.

The below implementation table highlights our progress to date against targets listed in the proposal.

We are confident, despite slight delays in proposed dates from the original bid, that we are on track for delivery the outputs listed in the proposal.

	Activity	No of months	Q1	Q2	Update
Output 1	Development and maintenance of up-to-date database of INNS in Cyprus (CyDAS) across taxa and environments, with innovative tools, including mobile application, for recording native and non-native species				
1.1	Support information on INNS in Cyprus (e.g. taxonomy, pathways etc.) updated bi-annually through the continued support and development of CyDAS	24	x	x	Ongoing.
1.2	Checklists of INNS maintained and published through RIS-Ký and GRIIS websites	24	x	x	Ongoing. GRIIS update request expected in the new year (2020)

1.3	At least 500 new record of INNS added over the two year duration of project	24	x	x	Vegetation surveys will be carried out in February 2020 where it is new INNS records will be collated towards the project outputs.
1.4	Engagement of at least 5 local stakeholders in curation of records and records curated by local or regional experts	24	x	x	Local SBAA and JSHU staff now started to make biological record observations using iNaturalist, which if accepted by peer groups, will become available on GBIF. Records of pollinators made through PoMS-Ký development surveys over summer 2019 as part of an MSc Thesis by Student Ioanna Angelidou (supervised by Helen Roy and Kelly Martinou). AEEC staff to incorporate PoMS-Ký surveys into lesson plan for 2019/20. Additionally, the adapted methods from PoMS- Ký have been adopted for trial by a research team in Chile working on Pollinators and engagement through a UKRI funded grant, SURPASS2.
1.5	Development of RIS-Ky project website with inclusion of additional online recording pages for other relevant initiatives such as monitoring mosquitoes and pollinating insects	1	x		Currently ongoing, with new recording capabilities – due for completion for submission of pollinator recording activities, end of October, with associated launch of PoMS-Ký and mini- PoMS-Ký. Ongoing discussion about stakeholder needs for other taxon recording capabilities
Output 2	Hydrological and vegetation sampling to generate baseline measures of Lake Akrotiri for water quality, soil moisture and vegetation data for the dry and wet season and work with local key stakeholders to understand and discuss results				
2.1	Soil moisture and water chemistry data available sufficient for characterising wetland quality	2		x	Eleven water samples at eight sites were collected in two visits (July and September 2019). Samples were analysed and sent to AEEC, JSHU and WDD in Cyprus. Conditions in September 2019 were too dry to allow for collection at five of the eight sites.
2.2	Results of survey discussed with Key Stakeholders at stakeholder meeting with SBA, local Government, NGO etc.	2			NA – potential Wetland monitoring conference in second year
2.3	Detailed assessment of native and non-native wetland plant communities around lake, with links to hydrology	2		x	Due to be undertaken in February 2020

2.4	Water monitoring methods shared with key stakeholder groups and other UKOTs to facilitate replication of methods elsewhere	1			NA – potential Wetland monitoring conference in second year
Output 3	Remote sensing of Lake Akrotiri lake and environs employed to give baseline assessment of plant communities and land cover, linking to ground truthing data collected in DPLUS056 and Output 2. Generation of methods for others to interpret satellite data for ongoing analysis of saline Mediterranean wetland site quality				
3.1	Digital plant community and land cover maps generated of Lake Akrotiri underpinned by baseline vegetation monitoring data	15	x	x	Training data collected and classification work begun
3.2	Production of published open access dataset on extent (current and future) of Lake Akrotiri water levels	1			NA – end of project
3.3	Production of published open access dataset on current and future vegetation changes around Lake Akrotiri	1			NA – end of project
3.4	Generation of standardised methods of analysing remote sensing data that can be used on other UKOTs, such as British Indian Ocean Territory, where changing water levels will be a critical aspect to the ongoing activities on island	1			NA – end of project

Output 4	Generation of outreach and engagement material around plant, animal and habitat interactions and further recording of species interaction data (by continuation of Citizen Science activities such as PoMS-Ky from DPLUS056 etc.)				
4.1	Teaching pack developed in collaboration with AEEC including activities relevant to monitoring biodiversity (including INNS), water quality and hydrology	2	x	x	Discussion to be held with SBAA, AEEC, JSHU and WDD staff November 2019 around suggestions for this
4.2	Creation of interactive web-based tool for use in engagement material to show complexities of wetland habitat and interlinkages between hydrology, ecology and society	2	x	x	Discussion to be held with SBAA, AEEC, JSHU and WDD staff November 2019 around suggestions for this
4.3	Structured Citizen Science (and associated QA) surveys looking at interactions between native pollinators and plant INNS	24	x	x	PoMS-Ký and Mini- PoMS-Ký guidance (including videos in English and Greek) and recording forms and guidance video completed and available through project website. Education staff working at the AEEC, with CEH and JSHU are currently writing a lesson plan on pollinators. Recording forms and guidance due to be translated into Greek by end of first year. Surveys will look at pollinator visitation on both native and non-native plant species. Meeting took place with Head of Pedagogical Institute in Cyprus 9 th September 2019 where it was agreed that three of the seven Environmental Education Centres in Cyprus would adopt Mini-PoMS-Ký, to inclusion in their Pollinator Education Plan. Additionally we have created mini-Pollinator guides in English and Greek for increasing engagement around pollinators. All resources from the project can be found here under “outreach material”. https://www.ris-ky.eu/resources
4.4	Publication of Code of Practice for Mosquito Management including rapid response for INNS	2	x	x	Currently in revision for re-submission

Output 5	Training and capacity building provided for UKOT government and military staff on biosecurity and continued biological recording of INNS				
5.1	Project start-up meeting and scoping survey finalise precise scope of subsequent workshops and surveys [April 2019]	1	x		Completed July 2019 (due to JSHU staff availability) with stakeholders from NGOs, SBAA, Cypriot Government, military and academia present
5.2	Engagement workshop and training event occurs [Q2 2019].	1		x	Date postponed to November 2019 where CEH, JSHU and the AEEC will hold a second horizon scan (focusses on human health and economy), biosecurity and impacts workshop for invasive non-native species. Evidence gaps workshop to be held spring 2020 to identify key environmental monitoring gaps in SBAs
5.3	Capacity building, through events at JSHU and the AEEC, webinars, information leaflets etc. [until Mar 2021].	8		x	See above but also the RIS-Ký project, through the JSHU was involved with co-hosting an EU COST Short Term Scientific Mission to raise awareness on the invasive crop pest, the brown marmorated stink bug – through “Bug Alert Cyprus” fliers. Additionally two AEEC education staff and a JSHU Research Associate visited CEH in July 2019 as part of a COST STSM, with support from the Darwin Grant to undertake analysis on PoMS-Ký data and to build links with UK environmental education staff and CEH researchers as part of a Knowledge Exchange event.
5.4	Year 2 training and engagement workshops building on survey and biosecurity issues highlighted in Year 1 [May 2020].	1			NA – proposed technologies workshop and wetland monitoring workshop 2020/2021
5.5	Publication of Biosecurity guidance, linked to DPLUS056 and informed by priority species identified through UK OTs horizon scanning currently led by CEH, for terrestrial habitats that will be applicable to all UKOTs	1			NA – end of project

Output 6	Effective project management and reporting				
6.1	Teleconference to assess year 1 and set up for year 2 [Oct 2019]	1			Due Q3
6.2	Progress teleconference meetings [Monthly]	24	x	x	CEH team meet monthly and email/Skype with JSHU and AEEC as needed
6.3	Annual Report [Mar 2020]	1			Due Q4
6.4	Half year report [Oct 2019, Oct 2020]	2			Current report
6.5	Project closure meeting [Feb 2021]				NA – end of project
6.6	Final report on project completion [Apr 2021]				NA – end of project
6.7	Publications [from April 2021]				Ongoing



2a. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

There have been no notable problems to date

2b. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS: Yes/No

Formal change request submitted: Yes/No

Received confirmation of change acceptance Yes/No

3a. Do you currently expect to have any significant (e.g., more than £5,000) underspend in your budget for this year?

Yes No Estimated underspend: £

3b. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary.

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document. Additionally, if you were funded under R25 and asked to provide further information by your first half year report, please attach your response as a separate document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also** be raised with LTS International through a Change Request. **Please DO NOT send these in the same email.**

Please send your **completed report by email** to Darwin-Projects@ltsi.co.uk. The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g. Subject: 25-035 Darwin Half Year Report**