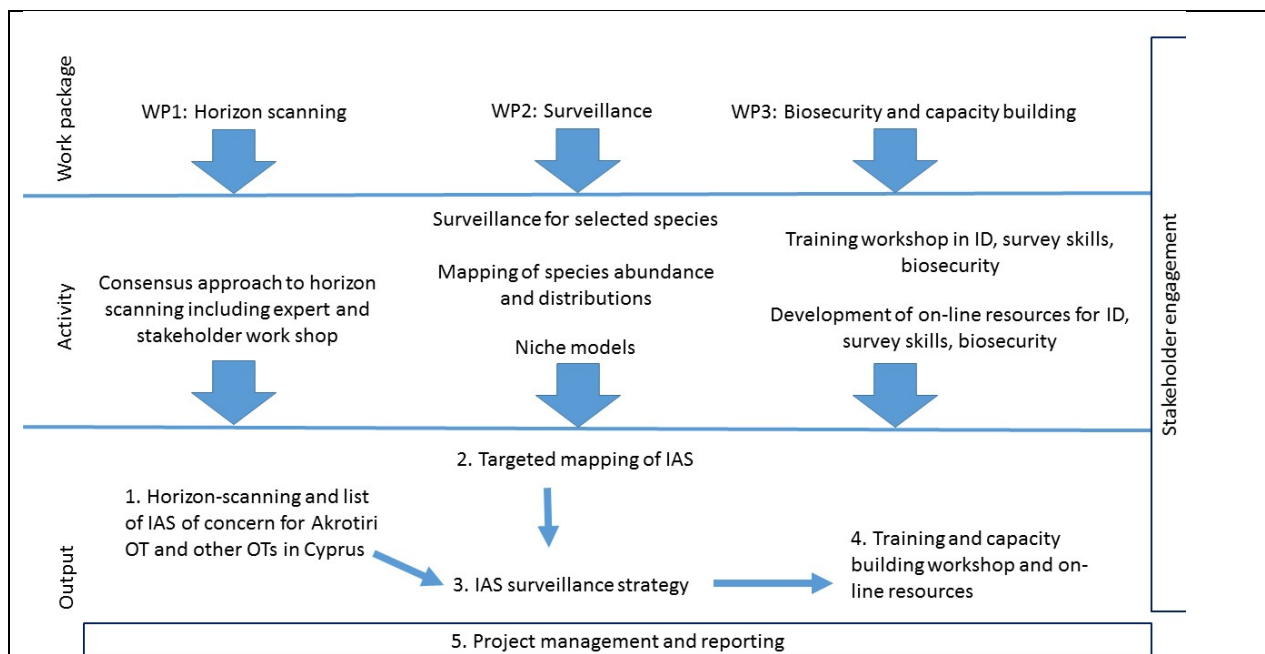


Darwin Initiative Main/Post/D+ Project
Half Year Report
(due 31stOctober 2017)

Project reference	DPLUS056
Project title	Assessment of current and future Invasive Alien Species in Cyprus
Country(ies)/territory(ies) –	SBAs of Cyprus – Akrotiri and Dhekelia, with possible surveys of Episkopi and Troodos
Lead organisation	Centre for Ecology and Hydrology
Partner(s)	Joint Services Health Unit, University of Cyprus
Project leader	Helen Roy and Jodey Peyton
Report date and number (e.g., HYR3)	<i>HYR1</i>
Project website/blog/social media etc.	www.ris-ky.eu Researching Invasive Species of Kýpros @RiskYAliens https://www.facebook.com/groups/riskycyprus

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 is run in three work packages as detailed below:



For this project reporting, we have annotated the project implementation timetable (see end of report) and provided a brief update below. We have also included a mini report on the mosquito monitoring being undertaken (Annex 1). Here we provide a brief summary of the key points documented in more detail within the project implementation timetable.

WP1: Horizon scanning

The consensus approach to horizon scanning was completed on 27th April 2017 and concluded with the prioritisation of 225 species, with a list of the top 100 species also being identified. Fifty-four experts were involved including representatives from universities, NGOs and officials from both the SBA and Cyprus Government (Annex 2). A manuscript will be submitted to a peer-reviewed journal in January 2018, but the list of identified species has been already shared with participants. The programme for the Horizon Scanning workshop can be found in Annex 3.

WP2: Surveillance

The survey and mapping of ten species prioritised from the horizon scanning and consultation with the SBA and the University of Cyprus has begun, with mosquito monitoring being undertaken throughout the time period since project start up in April (Annex 1). Marine surveys are also being undertaken by the project team and volunteer divers who are following the methods developed by the team this summer. Botanical surveys will be reported in the annual report, although the project has already allowed for the publishing of a GIS dataset relating to invasive and non-invasive alien plant species observed around the lake immediately prior to the official project start date (<https://doi.org/10.5285/7c84e06d-bb1a-4aac-b1d7-33c11310d8a0>).

WP3: Biosecurity and capacity building

The project team has been taking advantage of opportunities for capacity building as they arise (for example, through invitations to contribute to school teaching), but we have also been delivering activities within the remit of the project. A one day capacity building workshop was held in August 2017 at the AEEC, and included [talks](#) by British and Cypriot Natural Historians and staff on monitoring and surveillance led by volunteers, NGOs, Government and Academia. As part of this workshop, the project designed and produced identification and information postcards, in English and Greek to highlight the challenges around [IAS](#).

As part of this Darwin project we have also mobilised data from previous surveys in [Akrotiri](#). All other data will be shared in a similar way, i.e. deposited in a repository, with biodiversity

occurrence data being pushed to GBIF where possible (this is in process for plant quadrat data associated with the resource found here: <https://doi.org/10.5285/7c84e06d-bb1a-4aac-b1d7-33c11310d8a0>).

Presentations to date:

The project and funders were mentioned in the following plenary lectures:

Roy, H.E. (2017) Unravelling the Ecology of Non-native Species to Inform European Strategy. Global Action Against Aquatic Invasive Species. ICAIS, Florida, 22-26 October 2017.

Roy, H.E. (2017) How to promote and benefit from the collaboration from citizen scientists. Ecology and Management of Alien Plant Invasions (EMAPI), Lisbon, 4-8 September 2017.

Roy, H.E. (2017) Sharing information on invasive non-native species across Britain and beyond. British Ecological Society The Macroecology of Alien Species: Patterns, Drivers and Consequences of Global Biotic Exchange. Durham, 24-26 July 2017

Peyton J. et al (2017) Horizon Scanning for Invasive Alien Species in Overseas Territories in Cyprus, also presented at EMAPI and a British Ecological Society special meeting on macroecology and plant invasions.

Table of activity as per the project timetable:

Activity	Q1	Q2	Progress
	Output 1 Horizon-scanning and listed IAS of concern for Akrotiri OT and other OTs in Cyprus	x	
1.1 Horizon scanning workshop, including identification of local and regional experts to invite	x	x	<p>Completed: The workshop was completed in April 2017 and over 200 Invasive Alien Species of potential threat to the SBAs and Cyprus as a whole identified. The scoring workshop was held as part of a larger workshop that entailed talks from British Staff, Cypriot NGOs, British Government Agencies, Cypriot Government staff and European and Israeli scientists. Details of this three day workshop can be found in Annex 3.</p> <p>As part of this HS workshop, we also generated a sub-list of species that could be of concern from a human health perspective. A manuscript on this activity is currently being prepared.</p> <p>The workshop participants were divided into four subgroups based on the following categories for assessment: Terrestrial vertebrates and invertebrates, freshwater invertebrates and vertebrates, plants and marine. Experts, using the European and British Horizon Scanning lists and other information sources as a starting point, carried out literature reviews to assess which species would or could be a threat to SBAs on Cyprus.</p>
1.2 IAS list prioritised for monitoring and remedial action – combined result of workshop and field survey evidence	x	x	<p>Both from this workshop, and through ongoing consultation with stakeholders, the following potentially invasive alien species, and one native species have been identified for monitoring and survey:</p> <ol style="list-style-type: none"> 1. Port Jackson Willow <i>Acacia saligna</i> 2. Eastern Mosquitofish <i>Gambusia holbrooki</i> 3. Mediterranean Killifish <i>Aphanius fasciatus</i> 4. Mosquitoes with particular attention on appearance of species of concern: <i>Aedes albopictus</i> and <i>Aedes aegypti</i> 5. Lionfish <i>Pterois miles</i> 6. Toadfish <i>Lagocephalus</i> spp. 7. Rabbitfish <i>Siganus</i> spp. 8. Cornetfish <i>Fistularia commersonii</i>. 9. <i>Casuarina</i> spp. 10. <i>Eucalyptus</i> spp.

Activity			Progress
	Q1	Q2	
Output 2 Targeted mapping of IAS for Akrotiri and other OTs in Cyprus, where resources allow		x	The survey and mapping of many of the above species has begun, with mosquito monitoring being undertaken throughout the time period since project start up in April and marine surveys being undertaken by the project team and volunteer divers, with methodology created by the marine team, based on established protocols modified to be easily implemented by volunteers as well. The botanical element of this work will build upon the following work . Please see Annex 4 for survey plans for the four taxonomic groups to be surveyed.
2.1 Comprehensive mapping of at least 10 IAS			Marine, terrestrial invertebrates and plant all started, with freshwater vertebrate surveys beginning in March 2018.
2.2 Completed vegetation and habitat mapping of Akrotiri and other OTs in Cyprus, where resources allow, with overlay of IAS occurrence	x	x	Started and will continue in February when team re-visit Cyprus.
Output 3 IAS surveillance strategy	x	x	In progress – survey plans completed.
3.1 On-line recording website established as part of project website (focussed on at least 10 priority IAS)	x	x	Website established with development of online recording capability underway
3.2 Design of locally implementable field-based monitoring strategy for Akrotiri and other OTs, based on lists and evidence from 1.1, 1.2, 2.1, 2.2 and 2.3	x		See survey plans in Appendix A
Output 4 Training and capacity building workshops	x	x	Kelly Martinou led alongside Helen Roy and other scientists a school lesson at the Akrotiri Environment Education Centre (AEEC) in the April workshop. The project ran a specific one day capacity building workshop in August 2017 at the AEEC which included talks by British and Cypriot Natural Historians and staff on monitoring and surveillance led by volunteers and NGOS and Government and Academia. Please see Annex 5 for the programme for this workshop. The project designed and produced identification and information postcards, in English and Greek to highlight the challenges around invasive Alien Species. See Annex 6 for a copy of these postcards. We are currently working on an activity to implement, aligning with the school curriculum, for the Akrotiri Environment Education Centre for school children to learn about invasive alien

Activity	Q1	Q2	Progress
4.1 Project start-up meeting and scoping survey	x		The team have had numerous meetings and are regularly in contact through email and Skype. The core team e-mails at least weekly and has Skype meetings every month
4.2 Pre-survey workshop and training event occurs	x		The pre-survey workshops and training events have been aligned with April and August 2017 workshops and the marine and terrestrial invertebrates team are continuing to undertake training with volunteers. UCY has contacted local divers, who expressed an interest in participating in the surveys. At least five volunteers have successfully participated in one of the surveys and will participate in future, monthly surveys from now on. This will provide the marine team with additional data, expanding the surveys at no additional cost.
4.3 Capacity building	x	x	Ongoing through the entire six months with regular events at the AEEC run by Kelly Martinou; the marine team, led by Monica Demetriou are training diver volunteers. Kelly Martinou is running workshops regarding raising awareness for invasive mosquitoes for children groups but also for adult groups (next planned activity expected to take place at the AEEC on the 4 th of December for the University of the 3 rd Age group who run a biodiversity club).
4.4 Year 2 training			Not yet in progress
Output 5 Project management and reporting	x	x	This is ongoing.
5.1 Teleconference to assess year 1 and set up for year 2			End of year 1 activity
5.2 Progress teleconference meetings	x	x	Monthly meetings or email correspondence
5.3 Annual Report			Year 1 activity
5.4 Half year report			Current report
5.5 Project closure meeting			Year 2 activity
5.6 Final report			Year 2 activity
5.7 Publications produced			Horizon Scanning manuscript underway; book chapter on the historical context of several of the most high profile alien plant species is in press (see www.ris-ky.eu/resources).

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 problems or challenges with the project 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?

No, the project is progressing well. The team is working together effectively. We are grateful to Darwin for the funding and also rapid response to our queries.

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 R23 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 send your **completed report by email** to Eilidh Young at 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: 22-035 Darwin Half Year Report**