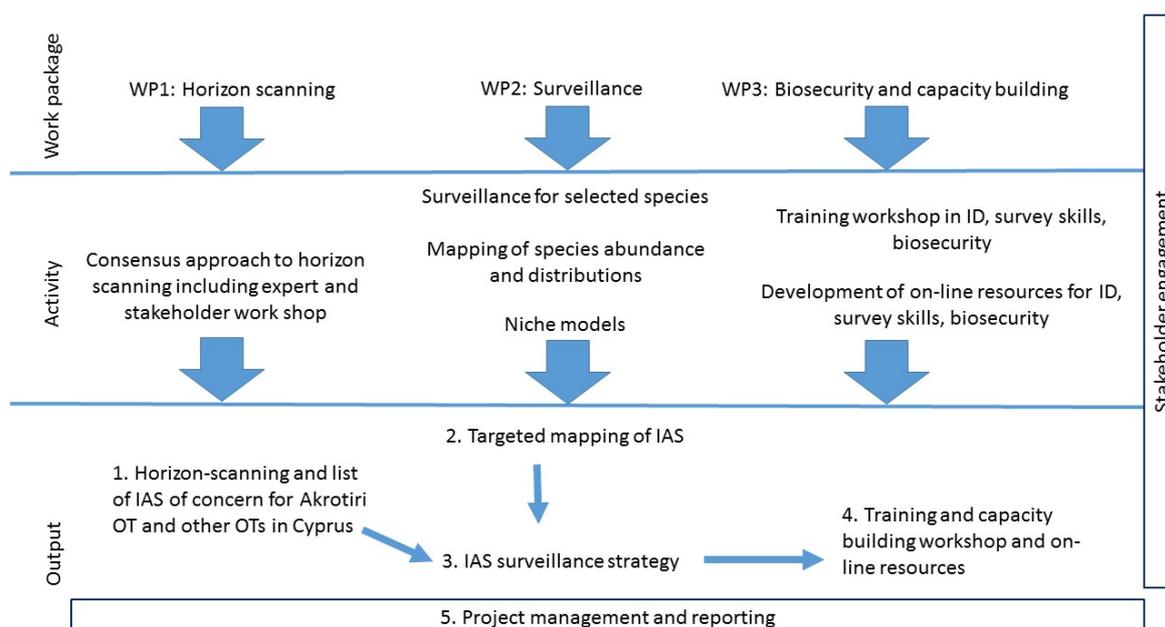


**Darwin Initiative Main/Post/D+ Project  
Half Year Report  
(due 31<sup>st</sup> October 2018)**

<b>Project reference</b>	DPLUS056
<b>Project title</b>	Assessment of current and future Invasive Alien Species in Cyprus
<b>Country(ies)/territory(ies)</b>	SBA of Cyprus – Akrotiri and Dhekelia, with possible surveys of Episkopi and Troodos
<b>Lead organisation</b>	Centre for Ecology and Hydrology
<b>Partner(s)</b>	Joint Services Health Unit, University of Cyprus
<b>Project leader</b>	<i>Helen Roy and Jodey Peyton</i>
<b>Report date and number (e.g., HYR3)</b>	HYR2
<b>Project website/blog/social media etc.</b>	<a href="http://www.ris-ky.eu">www.ris-ky.eu</a> (Researching Invasive Species of K�ypros) <a href="https://www.facebook.com/groups/riskykyprus">@RiskKyAliens</a> <a href="https://www.facebook.com/groups/riskykyprus">https://www.facebook.com/groups/riskykyprus</a>

**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 aligns to the following work packages:



For this project reporting, we have updated the project implementation timetable (see annex 1) and provided a brief update below.

**WP1: Horizon scanning**

Completed. The paper *“Horizon scanning for invasive alien species with the potential to threaten biodiversity and human health on a Mediterranean island”* submitted for review in the

journal *Biological Invasions*; this paper is based on the horizon scanning exercise undertaken during the first year of the project, and contains additional analysis and discussion of the data collected during that exercise.

## **WP2: Surveillance**

The survey and mapping of ten invasive alien species prioritised from the horizon scanning, and through consultation with the SBA and the University of Cyprus, is ongoing, with mosquito monitoring being undertaken throughout the time period since project start up in April 2017. Marine surveys continue to be undertaken by the project team and volunteer divers who are following the methods developed by the team and reported in HYR1. Local divers were informed about the project during a stakeholder meeting at Akrotiri, where 15-20 expressed interest in collecting data for the project. Three field trip dives have taken place in Akrotiri and Dhekelia since April 2018, 17<sup>th</sup> April, 24<sup>th</sup> July and 24<sup>th</sup> September. The initial results from our first botanical surveys were reported in HYR1 and AR1. The field survey assessed the current distribution and abundance of all vascular plant IAS within the two main SBAs, the habitats within which they occur and their status (planted, naturalised, [probably] casual *etc.*) During February and March 2018, a comprehensive survey took place of the Akrotiri SBA together with a pilot survey of the Dhekelia SBA. Further survey work will be undertaken in February 2019. Distribution data on plants collected in the first year of the project are currently being summarised in a data paper publication, and contain several new records of IAS for Cyprus. Freshwater fish surveys have been undertaken since February 2018 and have generated a thorough dataset for both native and non-native fish species

## **WP3: Biosecurity and capacity building**

The project team continue to take advantage of opportunities for capacity building as they arise and informed by WP1 and WP2 as planned within the work plan.

### Flower-Insect Timed Counts – Citizen Science initiative

We have also been developing a Citizen Science initiative, based on the Defra [UK Pollinator Monitoring Scheme](#) (PoMS), which involves counting insects visiting flowers as a proxy to derive trends on pollinating insects. Critical to the success of this initiative is engagement with visitors to the Akrotiri Environmental Education Centre (AEEC), to increased understanding of the importance of pollinators particularly in the context of IAS as floral resources. We ran a training session (16<sup>th</sup> April 2018) with two members of staff from the AEEC and two local experts based at the University of Cyprus. We are developing a lesson plan to go alongside this survey protocol which has been adapted to Cypriot species. We are working with a master's student to collate and analyse the data. The citizen Science surveys are being undertaken alongside expert surveys in this area to allow additional validation.

### Sustainable management of native and non-native vectors of disease

In April 2018 we hosted a workshop on vectors of disease in the Eastern Mediterranean (see Annex 2 for information on the workshop). This workshop brought together scientists and control practitioners from across Europe to discuss vector management and disease and collaboratively draft a Code of Practice for Mosquito Management. The focus was on wetlands such as Akrotiri, where there is considerable pressure from stakeholders, including the public, for broad-spectrum chemical control methods. The Code of Practice will be submitted within the next four months for publication. In conjunction with this workshop a summary leaflet, "Mosquitoes and me", (Annex 3) has been developed and disseminated through the AEEC and JSU.

The following book chapter has been published this financial year:

Martinou, A.F. and Roy, H.E. (2018) *From local strategy to global frameworks: effects of invasive non-native species on health and well-being*. Invasive Species and Human Health (Editor: Tricarico, E.) CABI Publishing.

## CyDAS

One of which is the publication of CyDAS (Cyprus Database of Alien Species) online and through GRIIS (the Global Register of Introduced and Invasive Species). CyDAS is based on the initial work of Dr Kelly Martinou, who collated lists of alien species on Cyprus from the DAISIE and ELNAIS databases. The [report](#) lists the work undertaken. As a part of the RIS-Ky project, we have transferred this information into a new database, with a unified set of fields (Annex 4), with the aim of making a "one-stop-shop" of information on alien species on Cyprus ([www.ris-ku.eu/cydas](http://www.ris-ku.eu/cydas)). This output has been standardised to follow the international Catalogue of Life taxonomy, and also retrieves distribution maps from GBIF for display. This database will be curated by local and international experts in the future.

### **Presentations to date:**

The project and funders were mentioned in the following plenary lectures, in addition to the workshop presentations listed below:

Native and non-native vector management in the Eastern Mediterranean and the Middle East (EMME), SBA Cyprus, 18th-20th April 2018:

**Peyton, J.** *RIS-Ký Overview*

**Roy, H. E.** *Alien pathogens on the horizon.*

**Schafer, S.** *Mosquitoes and you*

**Winfield, I. J.** *Overview of wetlands and their importance*

**Martinou, A. F.** *Code of Practice*

**Roy, H.E.** (2018) *Wildlife needs you*. New Scientist Live. London, UK, 22 September 2018

**Roy, H.E.,** Brown, P.M.J., **Botham, M., Peyton, J.M.,** Rorke, S.L., Beckmann, B. (2018) *Engaging people in surveillance and monitoring of non-native species*. IOBC WG Meeting Risks and Benefits of Exotic Biocontrol Agents. Azores, 10-13 September 2018

**Roy, H.E.** et al. (2018) *Unravelling the Ecology of Non-Native Species to Inform European Strategy*. IOBC WG Meeting Risks and Benefits of Exotic Biocontrol Agents. Azores, 10-13 September 2018. Keynote Speaker.

**Roy, H.E.** et al. (2018) *Horizon scanning for invasive alien species likely to threaten biodiversity in the European Union*. Neobiota, Dublin, Ireland, 3-6 September 2018.

**Roy, H.E.** et al. (2018) *Citizen science approaches to unravelling the ecology of non-native species to inform European Strategy*. European Science Open Forum, Toulouse, France, 11 July 2018. Invited Speaker.

**Roy, H.E.** et al. (2018) *Unravelling the Ecology of Non-Native Species to Inform European Strategy*. Artsdatabanken IAS Conference. Oslo, Norway, 5 June 2018. Keynote Speaker.

**Roy, H.E.** et al. (2018) *Ecology of non-native species: from research to strategy*. YNU Conference, York, 7 April 2018. Keynote Speaker.

**Roy, H.E.** et al. (2018) *Ecology of non-native species: global perspectives*. Insect Invasions, Monash University, Australia, 19 March 2018. Keynote Speaker.

**Roy, H.E.** et al. (2018) *Ecology of non-native species: global perspectives*. Cork University, Ireland, 23 February 2018. Invited Speaker.

**Winfield, I. J.** et al (2018) *Monitoring and management of the native Mediterranean killifish and introduced fish species in the poikilohaline environment of the Akrotiri Peninsula, Cyprus* at the Institute of Fisheries Management Specialist Conference 'Fisheries Management in Estuarine and Coastal Waters', in Lancaster University, Lancaster, UK and *Managing competing stakeholder expectations involving the native Mediterranean killifish (*Aphanius fasciatus*) and introduced fish species in the poikilohaline environment of the Akrotiri Peninsula, Cyprus* at the Symposium on 'Competing Mandate of Managing for Introduced Fishes' within the Annual Meeting of the American Fisheries Society, Atlantic City, NJ, USA

**Peyton J.** et al (2018) *Horizon Scanning for Invasive Alien Species in Overseas Territories in Cyprus*, also presented at IOBC in the Azores and Neobiota in Dublin.

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**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?**

None

**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 R24 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](mailto: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**