

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

Project reference	DPLUS040
Project title	Securing the future of St Helena's endemic invertebrates
Country(ies)/territory(ies)	St Helena
Lead organisation	St Helena National Trust
Partner(s)	St Helena Government (SHG) Natural History Museum, London, UK Museum für Naturkunde und Vorgeschichte, Dessau, Germany Buglife, UK
Project leader	Mike Jervois
Report date and number (e.g., HYR3)	HYR3, Apr 2017-Sep 2017
Project website/blog/social media etc.	<i>http://www.nationaltrust.org.sh/shnt-conservation-programmes/natural-heritage/invertebrates/</i>

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).

Outcome 1 – Conservation management will be improved in terms of the Island's endemic invertebrates.

The year-long invertebrate survey has progressed smoothly for the past six months. Samples were collected for one week every month at each of the 23 sites. One trap site was discontinued in July 2017 because the site became impossible to access. July also marked the halfway point of the survey. One quarter (three months) of the samples has been processed; specimens have been identified to species level where possible. Invertebrates which are unable to be identified have been put aside to await specialist help. Processing the samples has taken longer than expected; currently the team is processing an average of six samples per week, which will result in all samples completed by June 2018. However, in order to analyse results, prepare specimens for the collection, and complete the habitat and mole spider surveys, additional staff will be required to process samples quicker. A newly formed project Steering Group approved the recruitment of additional staff and a change request has been submitted to Darwin (sent on 19 October 2017) for permission to do so.

Methods for assessing the health of key areas of endemic plants for their associated invertebrates have been trialled through an index developed during a survey of the cloud forest by the project team in conjunction with the DPLUS029 "Securing St Helena's rare cloud forest trees and associated invertebrates" project. The index attempts to calculate the quality of a habitat based on abundance and diversity of invertebrate species recorded. A final report for this work has not been completed due to loss of David Pryce from the project team. Nonetheless, the methodology will be useful for assessing the health of habitats both in and outside of the cloud forest, and can be extended to assess if conservation work for habitats is also working for invertebrates.

Outcome 2 – A complete invertebrate identification toolkit will have been assembled.

The “St_Helena_Invertebrates” digital resource set continues to expand as samples from the survey are processed. For example, the species records are continually being updated with results from the survey. Invertebrates which are not represented are added to the collection. Picture keys, including a photographic guide to moths and butterflies, have been developed for practical use to assist the team to identify specimens. Invertebrates collected by NHM and NMVD partners have been sorted, mounted and identified and molecular analyses carried out where necessary.

The project team ran a training day for SHG staff working on the Landscape Ecology Mitigation Programme and SHNT staff working at the Millennium Forest. The training session was jointly run by SHNT and LEMP staff as a team building exercise and an educational activity. Training focussed on the bugs which live in the dryland gumwood restoration sites which they work on a daily basis. Twenty people participated and the training was well-received.

The educational resources continued to be improved and developed from the ‘Laying the foundations’ project. The education pack has been edited and is waiting for final formatting and printing in the UK. The project team has taught dozens of classes to over 300 students in the last six months through the Forest Schools program.

The project hosted four work experience students from the local high school and two adult volunteers for field and lab work.

The field guide has been progressing well. Hemiptera and all the smaller chapters have been completed; Coleoptera and Lepidoptera (the biggest chapters) are coming soon.

All specimens from the alcohol and dry collections have been entered into the Adlib Museum program, a museum cataloguing system especially procured for natural history items at the Museum of St Helena. This program will allow museum curators to keep track of the specimens and will allow researchers to access them.

Outcome 3 – The three main areas of restoration work undertaken will have been mapped at high resolution.

A pilot study was undertaken at the Millennium Forest gumwoods site in June 2017 to test methods for mapping. Photos were taken at set locations throughout the forest which were geo-referenced using GPS equipment loaned from SHG. Results of the trial showed that the methods were useful for habitat monitoring; however, they needed to be complemented with geo-referenced aerial drone photography, which can be included as raster data layers on the St Helena Government GIS. The project does not own a drone so we have collaborated with the project manager of DPLUS051 “Water security and sustainable cloud forest restoration on St Helena” project to train the project team in drone use and to conduct the aerial photography during November and December 2017.

Outcome 4 – Areas of natural regeneration will have been recorded at high resolution.

The project has collaborated with the project manager of DPLUS052 “Mapping St Helena’s biodiversity and natural environment” to determine how the habitats can be mapped. Working together with SHG will allow the data collected to be usable in the Government’s GIS. The habitat information will complement the habitat classifications which are being developed under the DPLUS052 project. Recording the areas of natural regeneration will commence during November with field assessments conducted together with the DPLUS052 project team.

Outcome 5 – There will be increased knowledge of the ecology and distribution of the Prosperous Bay Plain Mole Spider.

Outcome 5 has had little progress. The Steering Group has discussed how to progress the mole spider work. A species data review – a compilation of everything we know about the mole spider – is being carried out by the project team.

Data has been received from Basil Read (the company that built the airport) who conducted some monitoring of mole spiders during airport construction. These data will complement the preliminary surveys done of mole spider locations last year.

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 changes to the project team over the last six months. Sheena Isaac began in June 2017 as the new Assistant Project Officer. Mike Jervois joined in May 2017 as the Project Manager / Surveyor. Both have passed their probation periods and are valuable members of the team. David Pryce has left the project for personal reasons. Since he was the leading entomologist his departure has been a huge loss.

A problem is how to keep the project progressing with a reduced staff team – there are three people now employed on the project but there should be four – and without a professional entomologist (the existing three staff members are not professional entomologists).

The timely formation of a Steering Group has helped to combat the loss of David Pryce from the project. The Steering Group mainly consists of entomologists who can offer advice, can help manage the project and have contacts that can provide specialist help. A lot of expert help has been given already; both the NHM and NMVD are planning to visit the island again in early 2018 to assist with field collections, lab work, taxonomy, and will run training sessions to increase local capacity.

A solution to being understaffed is to hire local help. The Steering Group approved recruitment of an additional staff member to assist the project using savings from David Pryce's salary. A change request was sent to Darwin on 19 October 2017 to redirect the savings into the salary of an additional staff member, and a portion into consultancy fees for external help from experts overseas.

The changes to the project team will affect the budget because there will be an underspend from Salaries and other staff costs related to David Pryce. LTS is aware of the issue at every step along the way and have been very supportive. The timetable of project activities will not be affected by these changes; indeed, the changes will ensure the project will be completed on time.

The AR2 recommended reviewing the role that project partners have in project management, especially the St Helena Government. SHG is a key member of the Steering Group and has been involved in a training session through SHG's LEMP team. Separate discussions have also been taking place to explore ways that the project can become more embedded within SHG. Collaboration with the other projects will mean these SHG staff may help to direct elements of the project activities and result in shared knowledge.

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

Formal change request submitted:	Yes
Received confirmation of change acceptance	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: £ 5,666.67

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.

Discussed in section 2a, a change request was submitted to Darwin on 19 October 2017 to redirect the estimated underspend into a second Assistant Project Officer post and for extra consultancy fees to support external overseas help.

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

Darwin has been very supportive to the project during the last six months, specifically in relation to changes to staff and project management. The financial records had been reviewed, and the first two financial years have been resolved. The St Helena National Trust appreciates the help in rectifying our budget and the patience that had been forthcoming from Darwin. This has helped with smooth transitional periods and will ultimately aid the successful completion of the project.

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**