

Darwin Initiative: Half Year Report

(due 31 October 2010)

Project Ref No	DPLUS025
Project Title	Conservation of the spiky yellow woodlouse and black cabbage tree woodland on St Helena
Country(ies)	St Helena
UK Organisation	
Collaborator(s)	St Helena National Trust (SHNT), Environmental Management Division - St Helena Government (EMD), St Helena Nature Conservation Group (SNCG), Zoological Society of London (ZSL)
Project Leader	Phil Lambdon
Report date	30/10/2014
Report No. (HYR 1/2/3/4)	HYR1
Project website	

1. Outline progress over the last 6 months (April – September) 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).

1. Habitat restoration at the The Dell

Progress has been reasonably good.

(i) Clearance of 0.5 Ha of pasture grasses outside the Dell. Almost 0.5 Ha of pasture grass have now been cleared from the site by hand. Fragments of rhizome remain in the soil and these will re-root for up to two years – necessitating regular weeding.

(ii) Creation of windbreaks to protect plantings. Progress on these has been slower than expected. This was partly due to delays over shipping materials, and partly because support was only available for limited windows of time. Once the winter set-in, it became logistically impossible to carry heavy equipment to the site and to lay concrete anchors in the waterlogged soils. For these reasons, the wind-break construction has been delayed until the spring.

(iii) Seed collection and rearing of ground cover plants and trees. Seed collections have been made from two key endemic species: black cabbage tree (*Melanodendrum integrifolium*) and the cabbage tree (*Pladyroxylon leucodendron*). Seedlings of both species are currently being raised by EMD, although it may be up to 1 year before they are ready for planting. Reserves of black cabbage are now sufficient that regular batches can be sown to maintain a more regular production after the first year. In addition, large numbers of ground cover species are in production.

(v) Planting and performance monitoring of established cloud forest species. Over the past 6-months, over 300 dwarf jellico (*Berula burchellii*) and 200 Diana's Peak grass (*Carex diana*) have been added to the site, provided by EMD. 100 black cabbage trees have already been planted, but only approximately 50 have survived. This is partly a result of the strong winds and partly due to vulnerability to stem rot. Improved wind protection and improved knowledge of planting locations may permit better success next year. However, even if only 50 trees survive to adulthood it will make a big difference to the habitat area available. In two parts of the site already covered with non-native rebony (*Trochetiopsis x benjaminii*) which provide shelter, partial shrub clearance and planting has seen excellent development of dense ground cover and good tree establishment.

2. Assessment of effectiveness of shade canopy at enhancing re-establishment of cloud forest on open ground

The only scheduled actions were to set-up protocols and begin monitoring. Climate monitoring has not yet commenced due to the delays in setting-up the wind-breaks. All planted trees have been mapped and measured to provide baseline data.

3. Colony of spiky yellow woodlice established in captivity

At the time of writing the project proposal, the world population of spiky yellow woodlouse (*Pseudolaureola atlantica*) was estimated to be approximately 50 individuals in one habitat patch measuring less than 400 m². Since then, a second tiny fragment has been located by project staff (following advice from Mike Thorsen, 2014) in a further fragment of black cabbage woodland. This fragment is perched on a cliff ledge narrow cliff ledge approximately 200 m from The Dell and is inaccessible without ropes. There are assumed to be approximately another 50 individuals here, but the site is so difficult to reach that it will be impossible to work there on a regular basis. However, the new population provides a further reserve of individuals and decreases the risk of removing individuals for captive breeding.

In the original project proposal, we had intended to build a facility and start the captive breeding programme early in the project. Progress on this has been delayed. Since the spiky yellow woodlouse is extremely rare and there is little room for error, it is important to get the approaches right from the start. Initially, project staff on St Helena developed a consultation with ZSL and with Marwell Zoo, who are both world leaders in invertebrate conservation. We have jointly consulted with other experts on the best solution and are currently setting-up a working group. In fact, it has proved very difficult to learn from experience because the biology of the species is so different from that of a 'conventional' woodlouse that existing knowledge base is of limited use. However the experience has taught some valuable lessons.

Since we cannot afford to take many individuals from the wild, it makes sense to collect at least two gravid females, thereby ensuring a ready supply of juveniles to be born with a short period of time. The breeding season is during the winter, and it will not be possible to do this until July-August 2015, which is when we now intend to introduce the woodlice to captivity. This delay gives more time to develop the breeding facility.

5. Biodiversity inventory and Habitat Action Plan produced for the Dell

Work was due to start on this activity in the second quarter. The plant survey was conducted before the official start of the project, and the data were also used to inform the Endemic Plant Survey of St Helena under another Darwin Plus project (DPLUS008). No further survey work have been conducted yet.

2. Give details of any notable problems or unexpected developments 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.

Operational problems

No operational difficulties have emerged other than those discussed in Section 1.

Logistical and management problems

Logistical and management problems have arisen due to the working status of the project leader, Phil Lambdon. Phil is largely employed as an independent ecologist on St Helena. When the proposal was submitted, he had verbally pledged part-time support over the next two years to another project (the St Helena Airport Landscape and Habitat Mitigation Project LEMP), and since DPLUS025 was well-suited to a half-time post, a split-time arrangement

working on two projects seemed ideal. However, the agreement with the consortium who had intended to take on the LEMP fell-through. This left Phil with only DPLUS025, and insufficient work to maintain a living wage.

In order to protect DPLUS025, we discussed the issue with Darwin Plus and agreed a Change Request. St Helena Nature Conservation Group, who were the original lead organisation kindly agreed to pass the lead partner responsibility to St Helena National Trust. SHNT are a larger organisation, better equipped to cope with uncertainty and to provide logistical support where necessary. Phil pledged to persevere on a part-time wage for 6 months in order to keep the project running, and has been intensively seeking additional employment since then in order to secure longer-term continuation.

As several funding applications have been unsuccessful in the recent past, Phil's future is still not entirely resolved. All project partners are still working to come up with a firm solution, whether this will involve Phil's continuation or securing a replacement project manager. Fortunately, the issue has not had an impact on the delivery of the project objectives.

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

The issue has been discussed with LTS, and agreement was made to transfer the lead partner responsibilities from SNCG to SHNT.

Discussed with LTS: Yes no/yes, in Mar 2014 (month/yr)

Formal change request submitted: no/yes, in... Mar 2014 (month/yr)

Received confirmation of change acceptance no/yes in...Apr 2014...(month/yr)

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

Yes No

If yes, and you wish to request a carryforward of funds, this should be done as soon as possible. It would help Defra manage Darwin funds more efficiently if you could give an indication of how much you expect this request might be for.

Estimated carryforward request: £

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.

Please note: Any planned modifications to your project schedule/workplan or budget should not be discussed in this report but raised with LTS International directly.

Please send your **completed form by email** to Eilidh Young at Darwin-Projects@ltsi.co.uk . The report should be between 1-2 pages maximum. **Please state your project reference number in the header of your email message eg Subject: 17-075 Darwin Half Year Report**