

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

Project reference:	DPLUS070
Project title:	Oceanographic influences on the St Helena pelagic ecosystem
Country(ies)/territory(ies)	St Helena (UK OT)
Lead organisation	St Helena Government (Environmental Research Division)
Partner(s)	British Antarctic Survey (BAS), South Atlantic Research Institute (SAERI)
Project leader	Annalea Beard
Report date and number (e.g., HYR3)	HYR1
Project website/blog/social media etc.	http://www.sainthelena.gov.sh/marine-division/ http://www.sainthelena.gov.sh/facebook/nature-conservation

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).

Capacity building (Output 1): Most equipment needed for the project has been ordered or is now on St Helena however zooplankton nets have yet to arrive on island. This has prevented the start of the planned 18 months of pelagic sampling as well as staff training in the use of this equipment. SHG staff have familiarised themselves with the CTD package, interface and some of the theory in plankton quantification.

Oceanography (Output 2): A pelagic project officer has been appointed and will arrive on St Helena in October 2017. This delayed start has impacted activity 2.1 and 2.2 as this will be one of the project officer's roles to lead on once in place.

Zooplankton (Output 3): Zooplankton nets were ordered in May 2017 but due to the logistical challenges involved in reaching St Helena and a lengthy procurement process, they are yet to arrive. Estimated delivery date is between now and December 2017. Preliminary zooplankton net hauls were undertaken using small plankton nets already on the island (which is not appropriate for the long term monthly sampling programme but is capable of providing valid preliminary data). The samples have been sent to the project zooplankton consultant for identification and to start producing the preliminary zooplankton identification guide for St Helena.

Bait fish ecology (Output 4): The baitfish sampling programme has been established and commenced in August 2017. Their stomachs have been frozen for later analysis of contents and a subset of otoliths collected. Some gonadal samples have been collected and preserved in Formalin for histological analysis at CEFAS in Lowestoft. August had over 200 fish sampled but September failed to meet the 200 minimum quota for the month (activity 4.1, see table 1.)

Table 1. Bait fish sampling totals for August and September. Some gonads from smaller species were sampled for histology (SFH).

Month	Species	Length	Weight	Sex	Maturity	Stomach sampled	Otoliths sampled
August	Mackerel	129	129	129	128	104	24
	Bigeye scad	59	59	SFH	SFH	59	20
	Kingston	169	169	SFH	SFH	109	23
	yellowtail	1	1	SFH	SFH	0	1
	Totals	358	358	129+	129+	272	68
September	mackerel	39	39	39	39	39	23
	yellowtail	1	1	SFH	SFH	1	1
	Totals	40	40	39+	39+	40	40

Database and GIS (Output 7): This has yet to be completed due to the project officers delayed start on the project.

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.

Baitfish sampling commenced 1 month behind schedule due to there being some uncertainty in the co-operation of the fishermen and reliability of samples being provided on a regular basis. Given that through the year we know there are times when bait is scarce possibly due to spawning and the colder greener water, therefore fishermen are less likely to donate the bait to us it was decided to help ensure there was a regular supply of bait samples that it should be put out to tender, this process delayed commencement.

After sampling commenced there were two notable challenges in this programme. First, low yields were an issue which resulted in under sampling in September. As expected the mackerel seemed to be spawning and the water quality was reduced. To resolve this issue an aggregation device (a bait boy) will be added into the sampling protocol from October 2017. Additional tethering rope was purchased to facilitate this. Secondly, gender identification was problematic at first. In order to resolve the uncertainty in these data a subset of samples of gonadal tissue have been preserved and are going to be sent to CEFAS in Lowestoft for histological analysis.

Oceanographic sampling has yet to commence as zooplankton nets have yet to arrive on St Helena. The orders were placed in May 2017 but delays were caused by a lengthy procurement process and the additional time added by delivery of goods St Helena by ship from the manufacturer in the USA. These are plankton nets made to measure rather than off the shelf and it takes time for them to be produced. There was also a delay in getting the pelagic project officer in post as she was scheduled to arrive in October 2017. The result of these delays puts the 18 consecutive months of pelagic sampling behind schedule by 3 months as well as all associated outputs. No extra expense will be needed to cover sampling costs but consideration needs to be given as to if a project extension via a change request will need to be submitted to complete the project outputs or can this delay can be made up with ongoing sample analysis and writing up through the sampling programme.

This has highlighted that equipment and personnel needs must be well planned in advance and the process of procurement/hiring should start as soon as possible. This also highlights a potential problem if a key piece of equipment unexpectedly breaks or is lost/damaged. In order to mitigate this risk all safety checks are rigorously implemented and strict adherence to the sampling protocol observed.

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:	No
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: £

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

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**