

Darwin Initiative Main/Post/D+ Project Half Year Report (due 31 October 2016)

Project Ref No	DPLUS045
Project Title	Mapping Anguilla's 'Blue Belt' Ecosystem Services
Country(ies)/Territory(ies)	Anguilla
Lead Organisation	Cefas
Partner(s)	Department of Environment, Anguilla, UKHO, Environment Systems, Newcastle University
Project Leader	Koen Vanstaen
Report date and number (e.g., HYR3)	HYR1
Project website/ Twitter/ Blog/ Instagram etc	Updates available from @KVS1979
Funder (DFID/Defra)	n/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).

This project started in April 2016 and this report covers progress between April and September 2016.

The main activities identified in the baseline timetable are listed below, together with the progress to date.

1.1 Project kick-off meeting

An in-country project kick-off meeting was planned in May, but due to availability this took place during the week commencing 6th June 2016. A number of activities took place that week, including a formal project launch. The project launch was attended by the Governor of Anguilla, Her Excellency Governor Christina Scott, and Mrs. Cora Richardson-Hodge, Minister of Home Affairs with responsibility for Environment, and reported in The Anguillian newspaper (<http://theanguillian.com/2016/06/uk-government-funding-marine-project-in-anguilla-cost-price-270-000-about-ec1-million/>). The launch event was followed by a stakeholder meeting, attended by over 25 people from across Anguilla's public and private sector.

2.1 Stakeholder meeting to identify priority survey area(s)

The meeting brought together stakeholder from the Department of Environment, Department of Fisheries, Anguilla National Trust. Department of Physical Planning, Attorney General Chambers, Department of Disaster Management and oil terminal operator SOL to name a few. The stakeholder group was split in two to discuss and identify hydrographic and environmental priorities. The results showed stakeholder interest around the entire island, but priorities were Road Bay, Crocus Bay and Corito Bay, where a large number of stakeholders had an interest.

2.2 Vessel and equipment mobilisation/2.3 Hydrographic survey

During the June project kick-off visit to Anguilla, a number of vessels were visited to review their suitability for the survey work. Unfortunately, none of the Government owned vessels were suitable for the proposed work. The Department of Environment staff assisted in identifying a suitable, privately owned vessel. A vessel owned by a local charter company was confirmed in June for survey work in August. All equipment was shipped to Anguilla in July and the mobilisation started in August. The vessel mobilisation was delayed due to strong winds

and loss of power as a result of a tropical cyclone. Some equipment failures (confirmed working prior to shipping) also caused further delays, which meant vessel mobilisation time increased from 4 days to 7. Following the mobilisation, the hydrographic survey was undertaken in the Road Bay and Crocus Bay priority areas for 12 days as planned. The sea conditions during the survey period were at times rough, which meant survey progress was slower than anticipated. To ensure maximum impact and benefit of the work, the survey team was directed to gather data to maximally complement the satellite derived bathymetry work. No survey work took place in Corito Bay.

The focus of the hydrographic survey work was primarily in water depths exceeding 10 metres, as satellite derived bathymetry data will provide data for shallow water depths. Data were also collected in the deep submarine valley to the northwest of Anguilla, where water depths exceed 200 metres and now data had been gathered before. This led to the rediscovery of the wreck of the vessel *Marva W* and follow-on work by the Department of Fisheries with a view to create a potential new deep dive tourist attraction (<https://www.facebook.com/1432746530324893/videos/1758743427725200/>).

3.1 Review multibeam echosounder data and design video characterisation survey / 3.2 Undertake 5 day video characterisation survey

Although these activities show in Year 2 of the project timetable, this was actually a mistake and budget had indeed been allocated to this task in Year 1 of the project. A change request will be submitted to reflect this change to the implementation timetable.

Over the summer the project team reviewed existing satellite imagery for the area, as analysed by the Newcastle University PhD student aligned with this work. Some initial video ground-truthing priorities were identified from this exercise. Following the hydrographic survey the project team reviewed the preliminary data and identified further sampling stations.

The video survey was successfully completed in September 2016. Based on efficiencies identified during the June 2016 visit to Anguilla and priorities by stakeholders, the video survey was extended to 10 days and over 150 stations were visited. Whereas previous data collection had been limited to shallow, coastal waters, the survey collected data for the first time in the offshore and deeper waters around Anguilla.

1.2 Two day acoustic survey techniques and analysis training course / 1.3 Two day video survey techniques and analysis training course

Training has mainly been achieved through practical experience during the delivery of the fieldwork. Staff from the Department of Environment and Department of Lands & Surveys took part during the mobilisation of the equipment on the vessel. In particular, surveying of positions on vessels and the installation of a tide gauge was demonstrated (note, there currently is no permanent tide gauge present in Anguilla). During the video survey local staff (Department of Environment, Department of Fisheries and the Anguilla National Trust) participated in the survey work for 5 days, gaining knowledge in undertaking video surveys for ecological characterisation and the procedures employed. The Governor and Deputy Governor of Anguilla also joined for one morning and were highly complementary of the work being done (<https://www.facebook.com/goanguilla/posts/600386546810622>).

2.4 Data processing of hydrographic data

The bulk of the data processing was planned to commence in September, but much of the data processing was already undertaken during the survey. The final stages of data processing and validation will continue in the coming months.

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.

The most significant problem experienced by the project has been the sharp drop in the value of the British Pound against the US Dollar. At the time of developing this proposal the

GBP:USD exchange rate fluctuated around 1:1.55, which was used in the development of the budget estimate. When the team were in Anguilla in June 2016 to confirm arrangements for vessels, accommodation, shipping, etc as part of the fieldwork, the exchange rate was 1:1.45. Some efficiencies had been identified in vessel day rates and accommodation, which led to the decision to extend the video survey fieldwork within the available budgets. All arrangements were confirmed at the time. However, the EU referendum outcome at the end of June meant that by the time invoices were received and payments made in September/October 2016, the exchange rate had dropped to around 1:1.20, or a change of nearly 18%. This has had a significant impact on the project budget, which we plan to discuss with LTS once final invoices have been received and the full budgetary impact is clear.

The hydrographic survey suffered from weather delays. The survey work was planned in hurricane season and it was identified as a potential risk. The project lost about one and a half days during mobilisation to weather, and survey progress was slower (but not stopped) due to rough sea conditions at times. Any time of year will carry a weather risk to undertake marine survey work, especially in an exposed island such as Anguilla.

Some equipment problems were experienced during the hydrographic survey. The tide gauge, tested before shipping, developed a problem whilst deployed in Anguilla. Some data were lost, mostly for periods when no survey work was taking place. Similarly, a sound velocity profiler developed an issue during the survey. A work around was found by calibrating it against the secondary sound velocity probe attached to the hydrographic system itself. Having redundancy solved the sound velocity issue, and the lesson learned is to have a backup for everything when undertaking survey work in a remote location such as Anguilla (but this may not be possible for every item of the survey suite within the budgets available).

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 N/A

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.

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 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**