



Department
for Environment
Food & Rural Affairs



Foreign &
Commonwealth
Office



Department
for International
Development



Darwin Plus: Half Year Report

(due 31 October 2015)

Project Ref No	DPLUS036
Project Title	Sustainable management of threatened keystone predators to enhance reef resilience
Country(ies)	Cayman Islands
Lead Organisation	Marine Conservation International
Partner(s)	Cayman Islands Dept. of Environment, Guy Harvey Ocean Foundation, Nova SE University, Bangor University
Project Leader	<i>Dr. Mauvis Gore</i>
Report date and number (e.g., HYR3)	<i>HYR1</i>
Project website	www.marineconservationinternational.org ; http://www.doe.ky/

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) (max 500 words).

Output 1 Knowledge of population size of 5 marine apex predators:

- a) We have deployed BRUVS (camera traps) at all stations in a cool and a warm season on Grand Cayman**
- b) Training for Diver-based Distance Sampling is ongoing**
- c) The fin tag programme for sharks has begun.**
- d) All sharks on the BRUVS have been catalogued for Mark-Recapture.**

Output 2 Knowledge of individual movement patterns of 5 apex marine predators

- a) All Caribbean reef shark caught so far have had acoustic tags fitted; no snappers large enough for a tag have been caught during fishing yet; our partners at the DoE will tag the focal grouper species during a SPAG in January.**
- b) No sharks have been recaptured with fin tags to date by long-line. Our partners DoE have suggested that we not use traps but hand lines for snapper & SPAGs for grouper.**
- c) Two tagged sharks have been re-sighted by divers, one on Grand Cayman and one on Little Cayman.**

Output 3 Knowledge of reproductive biology in Cayman

- a) Gonads have been collected for one of the focal fish species, grey snapper. Fishing for further specimens is ongoing.**
- b) SPAG sites are under investigation and the locations of several for two of our focal species have been identified.**
- c) Nursery sites are being sought through dives, divers' and fishers' observations. Nursery sites for grey snapper have been located and camera traps will be placed in areas that have sufficient visibility to investigate.**
- d) Shark juveniles have been found in locations using camera traps and further sites will be investigated.**

Output 4 Knowledge of population exchange with adjacent areas

- a) Fin & tissue samples have been collected during scientific long lining and from collaborating fishers.**
- b) 3 oceanic white tip sharks have been satellite tagged.**

Output 5 Functional interactions of marine apex predators with other trophic groups

- a) Gut samples have been collected from collaborating fishers and the content analysed for prey category and volume.**
- b) Our partner at Bangor University has asked that we postpone our meeting until next year to discuss our data.**

Output 6 Establish & Operate Fishers Liaison Groups

- a) We have begun to contact fishers directly and now through community leaders.
- b) We will postpone this activity until next year when we have been able to contact more fishers.
- c) After presentations to the Cayman Islands Watersports Association and discussions with the Angling Club, they requested a leaflet on the project for 1) Divers & Snorkelers and 2) Fishers & Anglers. We complied with our stakeholders request and will begin preparing the booklet for the fishers, after consultation with a representative number.

Output 7 Develop and Publish Species Action Plans (SAPs) for 5 marine apex predators (with reference to related species)

- a) We will begin discussions once we have contacted a more representative number of fishers.
- b) Draft SAPs will be prepared in the next quarter.

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 (max 300 words).

We have achieved our outputs for the half year, but have been hampered by a few factors. There appear to be far fewer sharks and adult snapper than expected from earlier surveys. We are analysing the numbers for comparison with our standard surveys since 2009 and are concerned that there may be an increase in shark hunting recently, which we are investigating. The very warm waters that have continued into late October are causing coral reef bleaching (related to the global coral reef bleaching event currently) may also be a factor. As a results, fewer sharks, snappers and groupers have been caught to tag and it has slowed our progress towards developing the draft SAPs. To address this, we will continue to fish once our surveys have been completed for reef sharks & fish, and use the next large fishing tournament to include a greater number of boats and fishers to catch this two pelagic shark species for satellite tagging.

Contacting fishers directly has been slow, so we are turning to community leaders for assistance and expect to be able to have more fishers involved in the next months.

Our a) Bangor University partner and our b) Nova SE University partner requested rescheduling a planned visit to Cayman a) to discuss our data for co-analysis next year

and b) have a site visit with a graduate student as their teaching commitments caused them to cancel the planned trip to Cayman this quarter.

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** the situation is unfolding while writing this report

Formal change request submitted: Yes/**No** see previous point

Received confirmation of change acceptance: Yes/**No** see previous point

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 as it is unlikely that any requests to carry forward funds will be approved this year. 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 and would like to talk to someone about the options available this year, please indicate below when you think you might be in a position to do this and what the reasons might be:

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

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 1-2 pages maximum. **Please state your project reference number in the header of your email message e.g., Subject: DPLUSXXX Darwin Half Year Report**