



## Darwin Initiative: Half Year Report

(due 31 October 2014)

**Project Ref No:** DPLUS021

**Project Title:** Ascension Island Marine Sustainability (AIMS)  
– A Fisheries and Marine Biodiversity Project

**Country(ies):** Ascension Island, Falkland Islands

**Lead Organisation:** Ascension Island Government Conservation Department (AIGCD)

**Collaborator(s):** South Atlantic Environmental Research Institute (SAERI), Shallow Marine Surveys Group (SMSG), British Antarctic Survey (BAS), Royal Society for the Protection of Birds (RSPB)

**Project Leader(s):** Dr Nicola Weber & Dr Sam Weber

**Report date and number:** HYR1

**Project website:** [www.ascension-island.gov.ac/government/conservation/marine-biodiversity-and-fisheries/](http://www.ascension-island.gov.ac/government/conservation/marine-biodiversity-and-fisheries/)

**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).**

### **Output 1: Establishment of a Fisheries and Marine Science Unit on Ascension Island**

Personnel Background: The project began in April 2014, and 3 members of staff were recruited from a number of strong applicants and took up their posts in April and May 2014. Two of the three original project staff unfortunately resigned in July 2014 – they were not able to work professionally with each other and their problems in the workplace were spilling over into how they were interacting outside of work. Being a very small community on Ascension Island, such rifts are not easily resolved and both the individuals themselves and also higher management agreed that it was best for them to leave the island as everybody's priority was the success of this important project.

#### ***1.1 Appointment of Project Officer***

This outcome was originally achieved through the appointment of Dr Samantha Garrard by month 2 of the project (May 2014), Dr Garrard, however, unexpectedly left the unit in August 2014 due to personal reasons. Andy Richardson had previously been employed in the role of Marine Technician and after the departure of Dr Garrard was appointed to the Project Officer position in August 2014. Andy has proved himself to be capable, reliable and well-liked in the community and with the support of the Project Leaders has worked to ensure continued progress towards meeting the targets in the timeframe set out in the original proposal.

#### ***1.2 Appointment of Marine Technicians***

Two Marine Technicians, Daniel Moore and Andy Richardson, were appointed to the roles and in place by the start of month 2 (May 2014). However, in late month 3 (July 2014) Daniel Moore left the island due to personal reasons. Shortly afterwards the departure of the Project Officer (see Outcome 1.1 notes) and transfer of Andy Richardson to the Project Officer position meant that a second recruitment phase to the two technician positions began at the beginning of August 2014. One replacement, Kate Downes joined the project on 7th October 2014 and the other, Emma Nolan, on 27th October.

### **1.3 Creation of a marine and fisheries laboratory**

The physical laboratory space and inbuilt facilities (plumbing, electricity etc.) were completed by the close of Q1 to a high standard by on-island AIG teams. The laboratory is now stocked with all of the vital equipment including otolith saw, microtome and fume hood as well as basic laboratory equipment and chemicals and is now fully operational as a fit-for-purpose marine and fisheries laboratory.



**Before**



**After**

### **1.4 Training of Project Staff in marine survey techniques and the use of fisheries equipment**

At the time of appointment, all Project Staff were already experienced in a variety of marine survey techniques and any gaps in training were filled by within-team training. Specialist training is currently underway from project partners in the Falklands (SAERI and SMSG) for the more technical aspects of the work, including otolith reading for fish aging, histology and the use of side-scan sonar.

## **Output 2: Existing marine biodiversity and fisheries data are consolidated**

### **2.1 Review of existing data relating to Ascension's marine biodiversity and fisheries**

Data have been collated and digitised from ICAAT (5x5 resolution fishing logs), historical island daily fishing logs, Shallow Marine Survey Group expeditions and 2002-2004 marine survey records and entered into an Access database. A comprehensive species list has also been extracted from existing literature on Ascension Island and a sent to the JNCC Marine Recorder. Analyses of existing data were summarised and incorporated into a full literature review of studies in Ascension marine habitats, being started in month 2 (June 2014). This was due for completion at the end of Q2 but Project Staff departures have delayed the completion date for approximately 2 months. Projected completion date of the Ascension Island literature review is now the beginning of month 8 (December 2014).

### **2.2 & 2.3 Creation of a metadatabase & databases to house marine biodiversity and fisheries related data**

Databases have been created to house the data as they are collected and will be modified as the project progresses to house all existing data in a user friendly manner. Metadata have been supplied to the SAERI GIS-Hub and data will be made available once collected and analysed.

## **Output 3: Gaps in inshore and offshore marine biodiversity baselines are addressed**

### **3.1 Monthly surveys of inshore monitoring sites**

Following the arrival of the unit's inshore survey platform (RIB) in June 2014, a survey protocol was finalised and monthly site surveys began in month 3 (July 2014). After staff departures (notes from Outcomes 1.1 and 1.2) the work was completed with assistance from Dr Nicola

Weber, Dr Sam Weber and experienced volunteers from the island's diving community. Ten monthly sampled habitats have been identified at key points around the island. The number of monthly sites was reduced from 12 to 10 to allow for provision of time and personnel to map and survey a maximum number of single-sample sublittoral sites around the island. This will increase the effectiveness and accuracy of Outcome 4.1. Surveys of intertidal habitats also began in month 3. The number of sublittoral surveys stands (at the time of writing) at 56.

### ***3.2 Installation and monthly photographing of settlement panels***

Difficulties in the procurement (supply issues) of settlement panels have delayed the start of this process until at least the beginning of Q3. Settlement panel sites have been investigated and selected, with suitable attachment points on substrate identified. Panel sites are distributed at key points around the island, with consideration for prevailing currents, localised eddying and accessibility.

### **3.3 Complete species inventories for marine fishes, invertebrates and plants**

Collection and identification work is underway so that this objective is met at the end of the project.

### **3.4 Collection of offshore biodiversity data by offshore vessel**

Scheduled for Q3.



### ***3.5 Analyses of video and still image data***

Benthic quadrat photographs from monthly surveys have been stored, catalogued and analyses have begun using the software PhotoQuad to give percentage cover of biotic and abiotic benthic features to relate to biodiversity data. All current AIMS survey photographs have been analysed, with significant progress being made into analysing those of past SMSG expeditions.

### **3.6 Circulation of report to stakeholders and development into a peer-reviewed paper(s)**

Now that the team is again up to full strength, work is progressing well and we expect to meet this target at the end of the project June (2016).

## **Output 4: Marine habitats are classified and mapped**

### ***4.1 Development and testing of a fine scale habitat classification system for intertidal, sublittoral and offshore areas***

In addition to biodiversity data collected in Outcome 3.1, monthly surveys have included JNCC littoral/ sublittoral habitat classifications and Marine Recorder is also set up. Sidescan sonar and drop-down camera visual validation of habitats began in month 6 (October 2014) and a training course on the collection and analysis of sidescan sonar data led by experienced users from St Helena and the Falkland Islands.

### **4.2 & 4.3 Creation of a marine habitat map for Ascension Island & circulation of a report to stakeholders and development into a peer-reviewed paper**

Now that the team is again up to full strength, work is progressing well and we expect to meet this target at the end of the project June (2016).

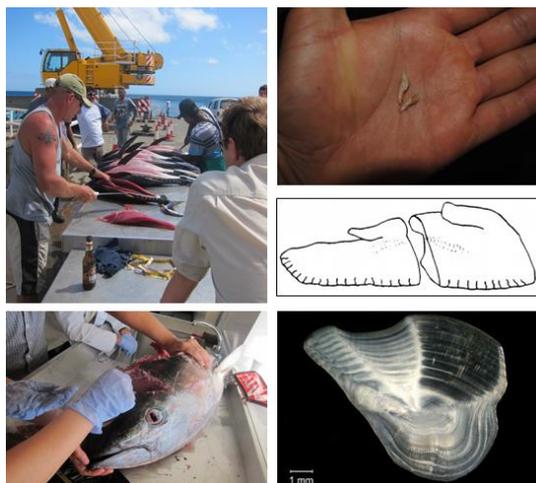
## **Output 5: Understanding the age, growth and reproductive biology of the main inshore commercial fish species is significantly advanced**

### ***5.1 Training of project staff and interested stakeholders in collecting otoliths, gonad samples and biometric data***

The first training course is currently being held (October/ November 2014), led by experts in the field Drs Paul Brickle and Zhanna Shcherbich (SAERI/ SMSG/ Falkland Islands Government Fisheries Department).

### ***5.2 At least 1600 otoliths sectioned, processed, validated and read***

Otolith collection began in month 2 (June 2014) by Project Staff being present on the Georgetown Pier Head when catches from the line/sport fishery were brought ashore. At the end of month 5 (September 2014), >500 otolith samples had been collected across 6 fish species; *Heteropriacanthus cruentatus*, *Epinephelus adscensionis*, *Thunnus albacares*, *Acanthocybium solandri*, *Holocentrus adscensionis* and *Seriola dumerili*. Coinciding with the training session, commencement of analysis is due to begin in month 7 (November 2014).



### **5.3 At least 400 gonads, fixed, stained and sectioned. Condition and gonad indices analysed**

Collection of gonad samples from the line/sport fishery ran concurrently with otolith collection (Outcome 5.2) but began later, in month 4 (August 2014). Samples were taken from three fish species; *Epinephelus adscensionis*, *Thunnus albacares* and *Acanthocybium solandri*. The number of samples collected currently stands at >70. Coinciding with

the training session, commencement of analysis is due to begin in month 7 (November 2014).

### **5.4 Establishment of growth curves, annual reproductive cycles and age at maturity for at least 3 commercially exploited fish species**

As detailed above, progress has been made with specimen collection and with the analysis now commencing, the project is on track to meet this objective.

### **Output 6: Development and implementation of a strategy for the on-going monitoring and management of Ascension's inshore line and vessel fisheries**

Work on this output is scheduled to commence in Q3 and will be reported on fully in the Annual Report. After the project was approved, Ascension Island Government appointed a Director of Fisheries, Dr Judith Brown, who took up the post in October 2014, and they also commissioned the Centre for Environment, Fisheries and Aquaculture Science (Cefas) to carry out an independent review of the marine management options available for Ascension's waters, which is due to be completed in November 2014. The report will guide how we proceed with this output and the Director of Fisheries will play a leading role in the development and implementation of the strategy, working closely with the Project Leaders and Project Staff to ensure that it is scientifically sound.

### **Output 7: Understanding of resource dynamics in the offshore fishery is significantly advanced**

As for Output 6.

### **Output 8: Initial by-catch risk assessments for seabirds, turtles and sharks in the commercial fishing fleet are completed and on-going observer capacity established**

As for Outputs 6 and 7.

### **Output 9: Project team completes tasks and prepares long-term exit strategy**

Despite unexpected setbacks, mainly relating to personnel and the delayed shipment of materials, and the developments in the marine management strategy for Ascension's waters driven by AIG management and the FCO that may influence some of the latter outputs, considerable progress has been made in the early stages of the project and we fully anticipate that this output is met.

**2a. 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.**

As detailed above and in the Change Request Form (approved 28/09/2014), changes in staffing have led to some delays in fieldwork, notably sidescan sonar, a reduction in otolith/gonad collection and the deployment of tags on pelagic fish. Despite this, considerable progress has been made and the new team is now in place and working well together. The 3 month extension that has been granted to the project will help to ensure that the stated outputs are met as fully as is possible.

	2014-15	2015-16	2016-17	Total	Dates
Current spread	154,665	106,422	0	261,087	1-4-14 to 31-3-16
Agreed revision	138,415	104,922	17,750	261,087	1-4-14 to 30-6-16

**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 Yes

**3a. Do you currently expect to have any significant (eg 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:

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

N/A

**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](mailto: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 eg Subject: 20-035 Darwin Half Year Report**