

## Darwin Initiative Main Project Annual Report

**Important note:** *To be completed with reference to the Reporting Guidance Notes for Project Leaders:  
it is expected that this report will be about 10 pages in length, excluding annexes*

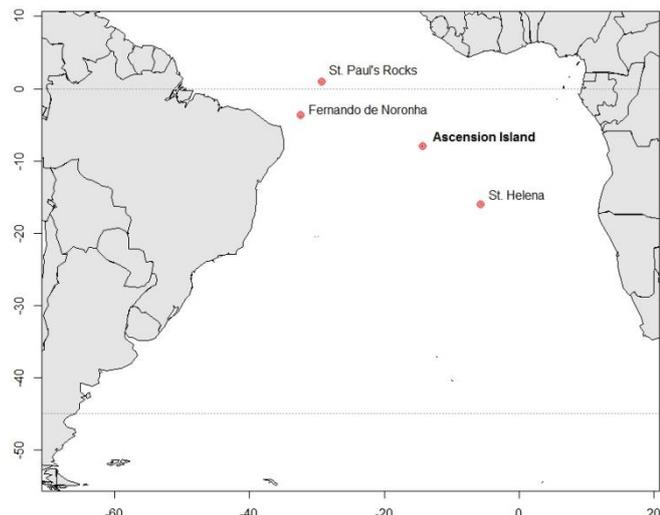
**Submission Deadline: 30 April**

### Darwin Project Information

Project Reference	DPLUS021
Project Title	Ascension Island Marine Sustainability (AIMS) – A Fisheries and Marine Biodiversity Project
Host Country/ies	Ascension Island
Contract Holder Institution	Ascension Island Government Conservation Department (AIGCD)
Partner institutions	South Atlantic Environment Research Institute (SAERI), Shallow Marine Survey Group (SMSG), Royal Society for the Protection of Birds (RSPB), British Antarctic Survey (BAS)
Darwin Grant Value	£261,087.00
Funder (DFID/Defra)	Defra
Start/end dates of project	01/04/2014 – 30/06/2016
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	April 2014 – March 2015
Project Leader name	Dr Nicola Weber / Dr Sam Weber
Project website/blog/Twitter	<a href="http://www.ascension-island.gov.ac/government/conservation/marine/">www.ascension-island.gov.ac/government/conservation/marine/</a> Facebook: <a href="https://www.facebook.com/AscensionIslandConservation">www.facebook.com/AscensionIslandConservation</a> Twitter: @AIGConservation
Report author(s) and date	Compiled by Andy Richardson (Senior Marine Scientist) with input from all of those involved in the project. 23/03/2015

### 1. Project Rationale

Ascension Island harbours globally important marine biodiversity, potentially representing a unique assemblage of western and eastern Atlantic flora and fauna. The Island also supports commercially valuable pelagic tuna fisheries, and an inshore recreational fishery. However, a paucity of baseline scientific data from the marine environment and a lack of capacity in marine and fisheries science within AIG are major barriers to the effective management and conservation of the Island's marine resources. Data



on the abundance, distribution and biology of endemic and commercially exploited species is particularly lacking. Addressing these issues has been identified as a strategic priority for AIG through a recently completed Darwin Initiative-funded project to develop and implement a National Biodiversity Action Plan (NBAP) for Ascension Island (#19-026: [www.ascension-island.gov.ac/government/conservation/projects/bap](http://www.ascension-island.gov.ac/government/conservation/projects/bap)). A recent Darwin Challenge Award to SMSG/SAERI (EIDCF012: 2012-13) generated some much need baseline data, but was limited in time and scope. By drawing on existing expertise in marine and fisheries science from within the South Atlantic UKOTs (SAERI, BAS, SMSG), as well as the wider NGO community (RSPB), this project aims to fill some remaining knowledge gaps and build capacity and facilities at Ascension Island that will enable the sustainable management of marine resources beyond the lifespan of the project

## **2. Project Partnerships**

As a UK Overseas Territory, Ascension Island has always had links with other Atlantic OTs, including the Falkland Islands. The original marine biodiversity surveys were conducted by SMSG in 2012/2013 and the partnership between this institution and the AIG Conservation Department remains strong. SMSG has provided information as to previous survey techniques, ensuring that data collected during the AIMS project is comparable with previous projects, plus providing on-island training to staff in the processing of otolith samples (see Output 1.4/5.1). Dr Paul Brickle (SEARI) has been an invaluable source of knowledge and training for a range of output tasks, particularly fisheries and marine biodiversity. Regular Skype meetings take place between Dr Brickle, the AIG Project Leaders and the AIMS team to discuss progress and address issues. SAERI has also provided advice on tasks such as GIS and database development. SAERI also travelled to Ascension to share training in Side Scan Sonar techniques (see Output 1.4) in January 2015. This training was provided by the Environment and Natural Resources' (ENRD) department of the St Helena Government. A significant partnership with St Helena is expected to continue with the successful application for a marine biodiversity Darwin Initiative project by the St Helena Government (DPLUS039), with AIG Conservation Department as project partners. BAS have provided assistance in establishing methodologies for settlement plates, as well as discussions for the collection of biodiversity data by an offshore vessel. AIG Conservation Department also has a long-standing relationship with the RSPB who provide support, both financial and practical, to sustain the core functions of the Department and have been involved in specific projects on-island relating to seabird monitoring, invasive species control and now more recently marine management through their own "Ascension Island Ocean Sanctuary" campaign.

## **3. Project Progress**

### **3.1 Progress in carrying out project activities**

#### **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. Due to the qualification-level and experience required for successful implantation of the project the application process was focussed largely overseas, with no local applications received. 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. A second round of recruitment began in August 2014, with two strong applicants taking up their roles in October 2014.

#### ***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, left the unit in August 2014. 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 and Fisheries Scientists, 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. Shortly afterwards the departure of the Project Officer (see Outcome 1.1 notes) and transfer of Andy Richardson to the Senior Scientist 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. Kate and Emma have worked with enthusiasm

and delivered a great deal of hard work towards the on-going progress in project outputs. Kate and Emma brought skills from their different backgrounds; Kate with experience in diving and marine surveys and Emma with extensive knowledge of laboratory processing, particularly in histology. Both have adapted well to the mixture of roles and responsibilities required when working on the AIMS project and appear to have settled into 'island-life'. Additionally, a local Youth Trainee, Megan Benjamin, has been recruited by Ascension Island Government for a 2-year placement with the Conservation Department. She is spending a significant proportion of her time assisting with the AIMS project and receiving on the job training.

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



**Before**



**After**

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. The laboratory has proved suitable for all aspects of work required for the project including, but not limited to; otolith sectioning, gonad histology, plankton sample processing and specimen preservation.

### **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. Knowledge of some skills such as mapping/ GIS software has been self-taught by Project Staff as and when

outputs have required with the guidance of the on-island Project Leaders. However, as anticipated in the Project Framework, some of the more specialist activities have required training from outside of the AIG Conservation Department. In October 2014, Dr Zhanna Shcherbich from SMSG/ Falkland Islands Government Fisheries Department (FIFD) provided training for otolith processing, including setting in resin, sectioning and mounting on slides. Guidance and training was also provided on estimating fish age from annual rings in otolith sections, as well as identifying and counting daily rings from juvenile specimens of *Epinephelus adscensionis* (grouper), a method which will be applicable in other species studied in the scope of this project. Additionally, methods and processes for validation of age readings between different readers (i.e. project staff) were explained. During the same training visit, Dr Paul Brickle provided training on CTD software and settings, use of Marine Recorder and collection of samples from marine settlement plates.



In January 2015, training in the use of side scan sonar (SSS) techniques was provided by Dr Sam Cherrett (St Helena Environment Management Division) including field deployment and data collection. Guidance was also provided on suitable storage formats, keeping event logs and selecting areas for video verification using drop-down camera equipment. Instruction was also given on use of the post-scan processing software, Triton, and subsequent transformation into GIS layers to develop a habitat map. The AIMS team was joined on this training by Dr iLaria Marengo and Dr Deborah Davidson from SAERI/SMSG in preparation for SSS use in the Falkland Islands.

This sharing of training also allowed for sharing of skills and knowledge exchange between the OT teams, Dr Marengo offering advice on meta-databases and Dr Davidson providing insight into gonad histology and otolith processing.

## **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, SMSG expeditions and 2002-2004 AIG Conservation Department marine survey records. A comprehensive species list has also been compiled after an extensive literature review of documents relating to Ascension Island and sent to the JNCC Marine Recorder, as well as being incorporated into the Conservation Department's own Biodiversity Catalogue that will shortly be made available online once completed. 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) and completed in month 8, which is currently a useful resource for the Department and we may look to publish it more widely in the future. Independent expert reviews of the fisheries (both commercial and inshore) of Ascension Island were commissioned to Cefas, UK by AIG in October 2014 as part of a broader island fishery strategy, reporting of this is expanded upon in Output 6.

### ***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 (<http://www.south-atlantic-research.org/ims-gis>) and data will be made available on request/ via publications once collected and analysed. Data from surveys is also being updated into the metadatabase, Marine Recorder v5, with particular reference to habitat classification using the JNCC Sublittoral Habitat survey forms.

### **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 (a Humber Destroyer 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 the on-island Project Leaders 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. The number of sublittoral surveys currently stands at 116 with the number of sites/habitats surveyed around the island at 30. Many sites have been around the west, north and east of the island as sea conditions are frequently too rough to allow access to divers for southern coast sites. Sea conditions are continually monitored and if/when suitable then a concerted effort will be made to fill the gaps in the southern coast surveys. Bi-monthly surveys of intertidal habitats also began in month 3 with presence/absence of marine animal/algal species being recorded in replicate tidal pools in 4 locations around the island.

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



Difficulties in the procurement (supply issues) of settlement panels delayed the start of this process until month 9. Settlement panel sites were investigated and selected, with suitable attachment points on substrate identified and additional attachment structure attached where necessary. Panel sites are distributed at key points around the island, at Portland Point, Georgetown, English Bay, Hummock Point and Boatswainbird Island. These sites were selected with consideration for prevailing currents, localised eddying and accessibility. All panels were successfully deployed in

month 10. In addition to settlement panels, HOBO temperature loggers were also deployed at the selected sites. Monthly photographing of panels using underwater DSLR with macro-lens is underway and is projected to continue until February 2016.

#### **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, and will be boosted during the SMSG expedition planned for June 2015. Samples have been collected during dives, intertidal surveys and also from stomach contents of fish landed by local fishermen. All specimens are logged, with preservation being performed according to taxonomist instructions. Samples will be sent to experts as necessary for formal identification once agreements are in place. A species list for marine animal and algal species has been compiled and validated using current literature, a list which will be updated as the project progresses.

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

Originally scheduled for Q3, logistical changes outside of AIG Conservation Department have led to the postponement of this until approximately month 17 (September 2015). This is currently being finalised with BAS and SAERI.

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



Benthic quadrat photographs from monthly surveys have been stored, catalogued and analysis is continuing 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 work

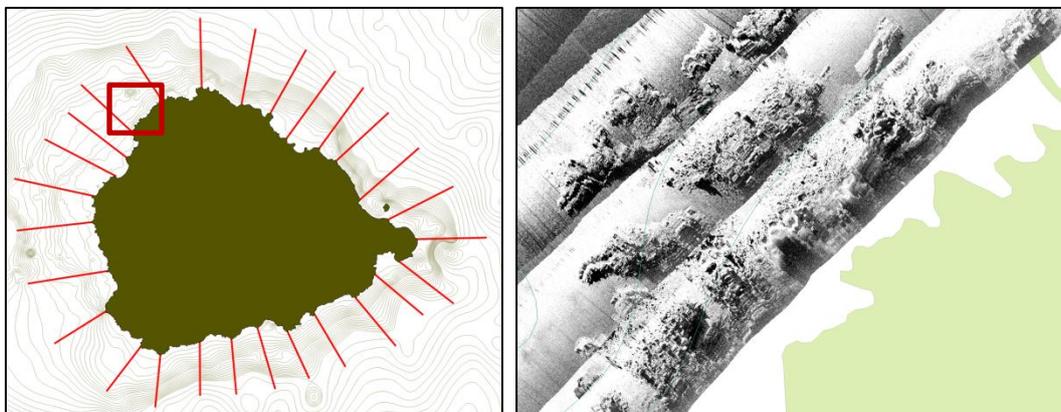
on-going to analyse those taken during past SMSG expeditions; 2012 having been completed with significant progress into 2013 quadrats. Verification video from SSS has been analysed and conclusions recorded for use in generating a sublittoral habitat map (see output 4.2).

### **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. Side scan sonar and drop-down camera visual validation of habitats began in month 6 (October 2014) with the island divided into 28 segments, 4 of which have been completed to date. The collection of these data has taken a bit of 'trial and error', but with protocols now in place, we expect significant progress to be made with this output over the coming months.

### **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, although mechanical issues with the RIB have reduced collection opportunities as well as other unavoidable delays e.g. relating to sea conditions. Delays in the establishment of a MoU at the Government management-level for the sharing of the Triton analysis software between the South Atlantic OTs has stalled post-scan processing of sonar data and subsequent creation of habitat maps. However, we still expect to meet this target by the project end (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**

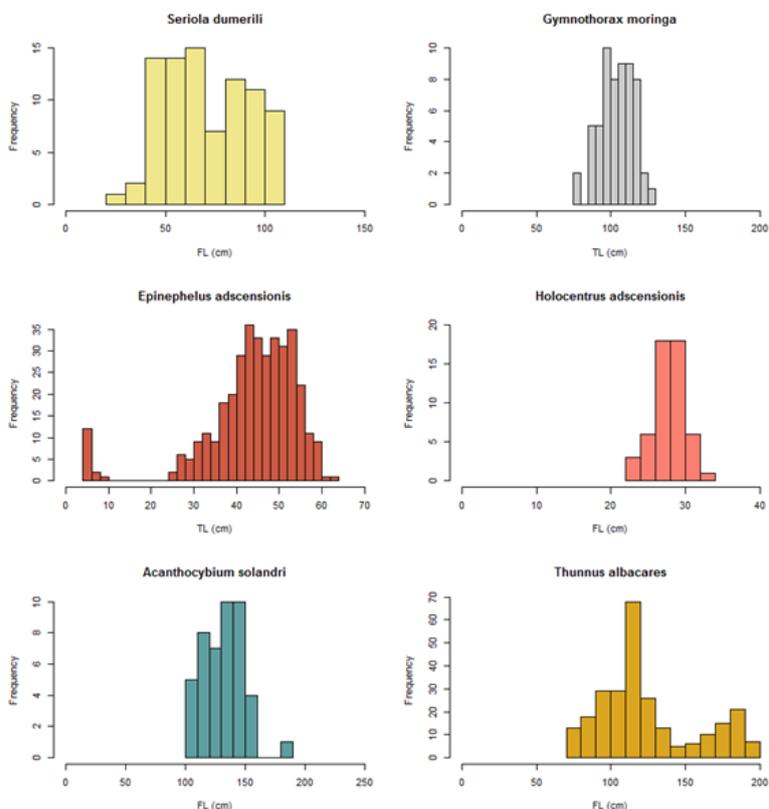
As reported in Output 1.4, Dr Zhanna Shcherbich (SMSG/ FIFD) provided training for otolith processing, including setting in resin, sectioning and mounting on slides in October 2014. Guidance and training was also provided on estimating fish age from annual and daily rings in otolith sections. Collection methods of otoliths from fish samples varies from species to species so such skills have been developed through practice and peer-coaching within the AIMS team during field collections. Dr Paul Brickle has given advice on the fixing and preservation of gonad samples, particularly in well-developed reproductive stages, via regular Skype project meetings and email correspondence.

### **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 recreational line and sport fishery were brought ashore. The team have built up a good relationship with the local fishermen, a feat that

shouldn't be underestimated as inshore fishing on Ascension has had no regulations to date and so the team has had to face and overcome some suspicion and hostility to be able to carry out their research that will ultimately inform imminent marine management decisions. Through perseverance and awareness raising the team have built up a good rapport with the fishermen with some openly supportive of the project and others remain suspicious but still willing to participate. At the end of month 10 (February 2015) > 900 otolith samples had been collected across 15 fish species with the key contributors being; *Gymnothorax moringa* (moray eel), *Epinephelus adscensionis* (rockhind 'grouper'), *Thunnus albacares* (yellow-fin tuna), *Acanthocybium solandri* (wahoo), *Holocentrus adscensionis* (squirrelfish) and *Seriola dumerili* (amberjack). For species with high numbers of otolith samples, namely *T. albacares* and *E. adscensionis*, selective size classes have been focused on from month 8 to ensure as wide a range of length distribution is sampled as possible.

(as of 23/03/2015)	
Species	Otolith samples
<i>Epinephelus adscensionis</i>	413
<i>Thunnus albacares</i>	280
<i>Seriola dumerili</i>	92
<i>Holocentrus adscensionis</i>	52
<i>Gymnothorax moringa</i>	78
<i>Acanthocybium solandri</i>	51
<i>Heteropriacanthus cruentatus</i>	12
<i>Thunnus obesus</i>	3
<i>Caranx crysos</i>	2
<i>Sphyrna barracuda</i>	1
<i>Paranthias furcifer</i>	1
<i>Pontinus nigropunctatus</i>	1
<i>Gymnothorax polygnonius</i>	1
<i>Schedophilus ovalis</i>	1
<i>Lutjanus jocu</i>	1



Coinciding with the training session, analysis began in month 7 (November 2014) with approximately 50% of collected samples having been sectioned and mounted. Around 200 otoliths (approximately 50% *T. albacares* and 50% *E. adscensionis*) have been read, and second read. A reference collection of *E. adscensionis* has been sent to the Falklands (MSG/SAERI) for validation of AIGCD readings.

### 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). The current total stands at approximately 300 samples, although collection will continue beyond the original target of 400 to ensure at least 12 months continuous sampling of selected species. Six main species have been identified for gonad collection based on their prevalence within inshore catches; *Gymnothorax moringa*, *Epinephelus adscensionis*, *Thunnus albacares*, *Acanthocybium solandri*, *Holocentrus adscensionis* and *Seriola dumerili* although monthly fluctuations in landings of *G. moringa*, *A. solandri* and *H. adscensionis* may result in temporal gaps in sampling. Delays in obtaining processing chemicals (due to specialist shipping requirements) delayed staining and sectioning of gonad samples until month 11 (March 2015) although

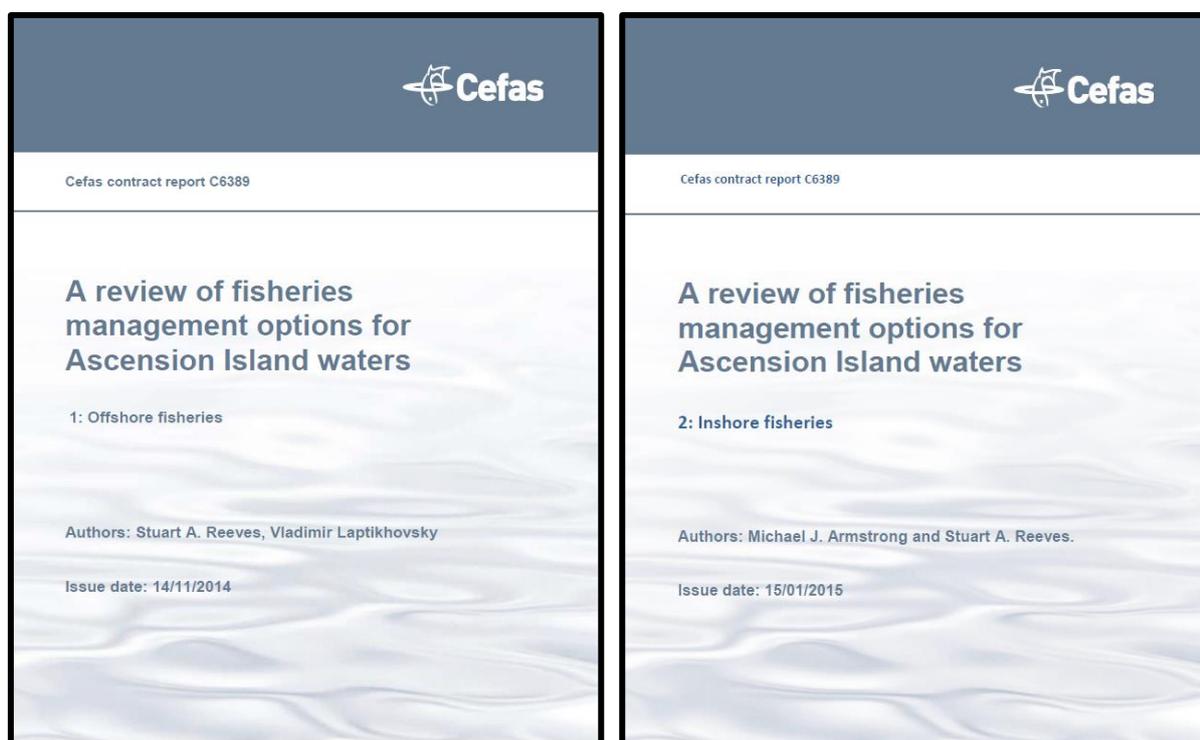
preliminary gonad condition has been recorded during collection based on a 1-8 maturity scale. The project is expected to meet this objective by June 2016.

#### **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 analyses are now commencing with the project on track to meet this objective. Species with comprehensive, established growth curves are expected to include *Epinephelus adscensionis*, *Thunnus albacares* and *Seriola dumerili* but valuable information on growth of other species (*G. moringa* etc.) in Ascension waters is also expected.

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

After the project funding was received, Ascension Island Government appointed a Director of Fisheries (DoF), Dr Judith Brown, who took up the post in October 2014 and is based within the AIGCD. As many of Dr Brown's responsibilities are similar to those of Outputs 6 and 8, she in her role has taken the lead on several project tasks, although AIMS project staff remain heavily involved, contributing scientific data to policy decisions and acting as a conduit to the onshore fishing community.



#### **6.1 Review exercise of past and present practices**

As part of a large-scale marine management review, AIG commissioned reports on fisheries management options for Ascension by independent experts. The report tender was won by the Centre for Environment, Fisheries and Aquaculture Science (Cefas) in October 2014, with the inshore report completed at the start of 2015. The inshore fisheries review concentrated on current on-island practices, export records and potential structure for any future licensing of the inshore fishery. Also included was a suggestion of a risk system for inshore fish species that are targeted by fishermen, based on stock health, species longevity and reproductive output.

#### **6.2 Consultation with partners and stakeholders e.g. local fishermen and members of the community through a series of public meetings**

As part of the inshore fishery review by Cefas, a series of informal discussions was arranged to allow local fishermen and other stakeholders in the marine environment (SCUBA divers etc.) to contribute local knowledge and information on their fishing practices towards the final report. These were moderately well attended, often with discussions being self-sustaining without

requiring overt amounts of leading by the meeting chair (DoF). Following the completion and approval of the Cefas reports, public meetings took place to feedback the main recommendations and findings of the reports to the community. The results of the inshore report were disseminated via public meeting, presented by the DoF and opened to questions from the floor. These meetings were very well attended by the fishing fraternity, as well as by the wider community, with lively debates often following the meeting content. There is resistance from some sections of the local fishing community for any degree of regulation of the recreational fishery. The AIMS team, DoF and Conservation Team as a whole will continue to work with community on this and to raise awareness and understanding of why it is required.

One outcome from the inshore public meeting was the establishment of an Inshore Advisory Committee (IAC). The purpose of this committee is to listen to the opinions of representatives from various facets of the inshore fishing community (commercial sports businesses, inshore vessels, rock fishermen etc.), plus feedback on the status of any licensing decisions. The initial meeting of this committee took place in March 2015 and was well attended. Discussions at this meeting were productive and the future of this committee appears promising.

### **6.3 Implementation of a licensing scheme and a scheme for reporting of catch and effort in the inshore fisheries**

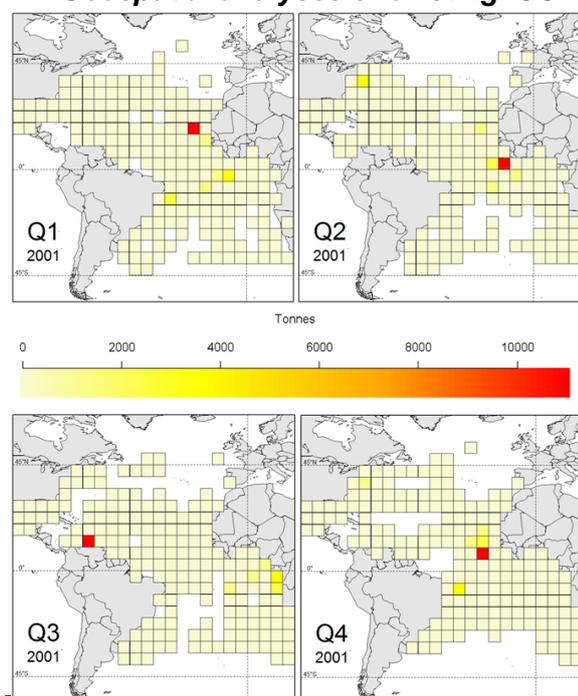
The future of a licensing scheme for the onshore fishery of Ascension Island is still at the planning and public consultation stage, the lead in this part of outcome 6.3 being the DoF. One recommendation of the Cefas report was to divide the inshore fishery for the purposes of licences, differentiating between different parties such as inshore private vessels and commercial sports-fishing businesses. One of the goals of the IAC is to establish an effective method of gathering catch and effort data from the array of fishermen in the inshore fishery. However, a voluntary reporting scheme has already been implemented in the commercial sports fishing businesses, a flexible format that allows changes to be made, according to feedback from those completing the forms. A simple catch form return system has also been installed at the Georgetown Pier Head, a location which most fishing activity centres around.

### **6.4 Circulation of report to stakeholders and partners**

Despite delays caused by changes in government policies and public consultation procedures, work towards this outcome is progressing well and we expect to meet this target at the end of the project (June 2016).

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

### **7.1 Geospatial analyses of existing ICCAT data are carried out**



The Cefas offshore fishery review investigated the practices of the previous longline-licensing regime in the Ascension EFZ, as well as analysis of ICCAT data for the surrounding region.

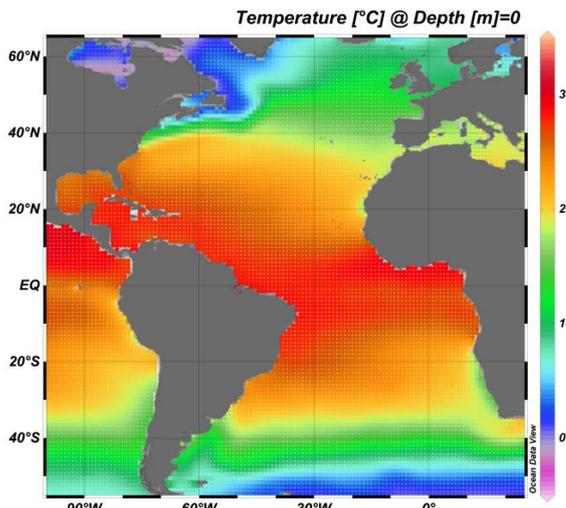
Independent analysis of quarterly annual ICCAT data was conducted by the AIMS team, the results being transformed into 5x5 degree 'heat maps' based on catch weight in tonnes. Four species were used to generate these maps, *Thunnus obesus*, *T. albacares*, *X. gladius* and *Makaira nigricans*. The data are also being transformed into GIS layers for the South Atlantic region.

While 5x5 degree resolution of catch data loses some detail, it was the best data available from ICCAT for the region. The Cefas consultants submitted a request for 1x1 degree resolution catch data but the request was unsuccessful.

## 7.2 Development of predictive models to attempt to explain patterns of distribution and abundance

Work is currently underway towards this outcome using oceanographic data from the public domain. Environmental data have been sourced from AVISO (Sea Surface Height Anomaly, Eddy Kinetic Energy, Surface Wind Speed), NCDC (Sea Surface Temperature, Bathymetry) and World Ocean Atlas (Phosphate, Nitrate, Dissolved O<sub>2</sub>), and processed using the software Ocean Data View. Predictive models are being developed using catch-effort values for several fish species from ICCAT archive data. Work is expected to be completed on this outcome by the end of Q1 Year 2.

The results of this work will also be combined with AIGCD sea turtle, tuna and seabird tracking data to provide a broader insight into surrounding marine dynamics, contributing towards larger marine management strategies.



## 7.3 Deployment of at least 400 mechanical tags and 20 PAT tags on pelagic fish (e.g. tuna and marlin) in the line/sport fishery



The number of MiniPAT tags, from Wildlife Computers, was revised from 20 to 13 in light of additional, necessary expenditure on satellite time costs. However, a collaboration with Danah Divers/ Save Our Seas has enabled a further 10 tags to be purchased. To date, 5 PAT tags have been deployed on *T. albacares* around Ascension Island. Careful consideration was taken as to the method by which the tuna were tagged, in order that the fish is released in as strong a physical condition as possible. The first three were deployed in-water using an adapted spear tip, fired by a skilled spearfisherman from the company Ascension Island Fishing Charters in November 2014. While this method had minimal physical impact on the fish (zero handling and line time) it was time consuming and unfortunately coincided with a seasonal lull in tuna numbers in the inshore area. The other two PSAT tags were deployed in March 2015 using tuna caught on a heavy line and tackle (reducing the fish retrieval time) with the assistance of Atlantic Fishing Charters. This method required more handling time of the fish but the tuna were still released in what appeared to be excellent physical condition. The PSAT tags have been set to collect data for 365 days, with detailed depth profiles every 3 days together with daily depth and temperature histograms. They are programmed to release and transmit their data after 365 days at large or if the fish has been caught/ died as indicated by extended time spent at depth or on the surface.



Hallprint plastic intramuscular tags (PIMA) have been issued to the commercial sportsfishing businesses for deployment throughout the fishing season. Although many of these personnel have past experience of tagging, they have also been issued with best practice guidelines and log sheets for recording biometric data for the tagged fish. Smaller PIMS tags have to been deployed from April 2015 by the AIMS team on smaller species targeted by the inshore recreational fishery, including *H. adscensionis* and *E. adscensionis*. Biometric recordings will be made of the caught specimens, plus the administration of a dose of oxytetracycline to reduce risk of infection and also create a chemical mark for future otolith analysis in the event of recapture.

## **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**

Work towards this output has been put on hold due to developments in the marine management strategy for Ascension's waters driven by AIG management and the Foreign and Commonwealth Office (FCO). Future direction and progress will be dictated by higher AIG and NGO policy, as well as political timelines within the FCO and wider UK government.

**8.1 AIG employ an at-sea observer, to be funded in the long-term by the sale of licences**

**8.2 AIG observer receives on –the-job training from experienced visiting observer (employed by the RSPB)**

**8.3 Geospatial analysis of seabird and turtle tracking data in conjunction with VMS and catch, effort and location data derived from ICCAT to examine potential overlaps**

**8.4 By-catch risk assessment ground-truthed by the at-sea observer monitoring over 250,000 hooks**

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

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

Work on tasks that contribute towards this outcome is progressing well and it is expected that Output 9 will be completed by the project end.

**9.1 Development of at least 3 SAPs and 2 HAPs for marine biodiversity within the NBAP framework**

**9.2 Integration of data into a GIS platform as a basis for future marine spatial planning**

**9.3 Submission of final project report and production of a policy paper on inshore fisheries for AIG**

### **3.2 Progress towards project outputs**

Despite unexpected setbacks, mainly relating to personnel and the delayed shipment of materials, and the developments in the marine management strategy review for Ascension's waters, considerable progress has been made in the first year of this project and we fully anticipate that where the AIMS team is leading the work, these outputs will be met. This claim is substantiated by the tangible progress in collecting and processing otolith and gonad samples, as well as the uninterrupted cycle of monthly marine biodiversity surveys.

### **3.3 Progress towards the project Outcome**

This section outlines the key progress towards outputs; please refer back to section 3.1 for expanded discussion and evaluation of progress. The milestones achieved thus far suggest that the project Outcome will be met by the end of project.

1.1 Appointment of Project Officer **Achieved**

1.2 Appointment of Marine Technicians **Achieved**

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

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

2.1 Review of existing data relating to Ascension's marine biodiversity and fisheries **Literature archived, species list generated, 2 reports on fisheries commissioned and received**

2.2 Creation of a metadata catalogue **Structure agreed, work in progress**

2.3 Creation of databases to house marine biodiversity and fisheries related data **Structure agreed, work in progress**

3.1 Monthly surveys of inshore monitoring sites **9 months out of 12 (2014/15)**

3.2 Installation and monthly photographing of settlement panels **Deployed and 1/12 monthly photographs completed**

3.4 Collection of offshore biodiversity data by offshore vessel **Scheduled September 2015**

3.5 Analyses of video and still image data **9 months completed**

4.1 Development and testing of a fine scale habitat classification system for intertidal, sublittoral and offshore areas **Work in progress from benthic quadrat and Side Scan Sonar data**

4.2 Creation of a marine habitat map for Ascension Island **Side Scan Sonar surveys in progress, 4/28 segments completed**

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

5.2 At least 1600 otoliths sectioned, processed, validated and read **>900/1600 otoliths collected, approx. 450 otoliths mounted and sectioned, ~200 sections read.**

5.3 At least 400 gonads, fixed stained and sectioned. Condition and gonad indices analysed **~300 gonad samples collected and fixed, ~80 sectioned and stained**

6.1 Review exercise of past and present practices **Inshore and offshore reports by Cefas commissioned and received as part of AIG fishery policy review.**

6.2 Consultation with partners and stakeholders e.g. local fishermen and members of the community through a series of public meetings **2 public meetings, 2 meetings of Inshore Advisory Committee**

6.3 Implementation of a licensing scheme and a scheme for reporting of catch and effort in the inshore fisheries **AIG fishery licensing policy remains under review**

7.1 Geospatial analyses of existing ICAAT data are carried out **Part of Cefas offshore fishery review and internal AIMS analysis**

7.2 Development of predictive models to attempt to explain patterns of distribution and abundance **Remote sensing data obtained and GIS layers created**

7.3 Deployment of at least 400 mechanical tags and 20 PAT tags are on pelagic fish (e.g. tuna and marlin) in the line/sport fishery **5/13 MinPATs deployed, ~10 PIMA mechanical tags deployed in pelagic species**

8.1 AIG employ an at-sea observer, to be funded in the long-term by the sale of licences **Ascension offshore fishery under review**

8.2 AIG observer receives on-the-job training from experienced visiting observer (employed by RSPB) **Ascension offshore fishery under review**

8.3 Geospatial analyses of seabird and turtle tracking data in conjunction with VMS and catch, effort and location data derived from ICAAT conducted to examine potential overlaps **Ascension offshore fishery under review**

8.4 By-catch risk assessments ground-truthed by the at-sea observer monitoring over 250,000 hooks **Ascension offshore fishery under review**

### **3.4 Monitoring of assumptions**

After the AIMS project was approved, AIG implemented a larger policy to suspend the offshore fisheries until a review could be completed, including the employment of a Director of Fisheries. With this change of policy, as well as those of some NGOs such as the RSPB, some of the offshore fishery outputs of the AIMS project have had to change scheduling or else become logistically unfeasible. Every effort is being made by the project team to ensure that targets are met, although policy at a considerably higher level than the AIGCD may dictate that some outcomes are not fully met.

### **3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation**

The overarching goal of the project was to improve on-island capabilities applied to the sustainable and equitable management of the marine biodiversity of Ascension Island through the local government Conservation Department and their relationship with overseas partners who can share their expertise to help achieve this. As detailed in the report and highlighted in the logframe, this project has already helped to significantly increase on-island capabilities and to engage the wider local community, which should enable the team to make a significant contribution to safeguarding Ascension's unique biodiversity. The baseline marine habitat data collected over the course of this project and beyond will be used to monitor any future changes in marine biodiversity, including fisheries stocks, in Ascension's waters (Outputs 3 & 5) as well as changes in the associated habitat (Output 4).

## **4. Project support to the Conventions (CBD, CMS and/or CITES)**

The project is helping Ascension to meet obligations under the three major biodiversity Conventions. With regard to the CBD, the project is helping the Territory make considerable progress to a number of the Aichi Biodiversity Targets, in particular Target 6, the sustainable management of fish and invertebrate stocks. Data collected over the course of the project will help to inform decisions relating to Targets 11&12, the protection of important coastal and marine areas and threatened species. Additionally, a number of habitat and species action

plans for these important marine areas and species will be created and implemented, contributing to Strategic Goal E as a whole. The project will also continue AIGCD's progress towards Target 1; awareness raising of the value of biodiversity and what can be done to protect it. With regard to the CMS, all of Ascension's migratory species are marine, including sea turtles, cetaceans and migratory tuna. Some, such as sea turtles, are already protected under local legislation and this project is collecting data to fill knowledge gaps for others so that suitable legal protection can be afforded if deemed necessary. Work is currently in progress by the Conservation Team and Solicitor General, with advice from Defra and the CITES Secretariat, to tighten the local Ascension legislation with regard to CITES.

## **5. Project support to poverty alleviation**

As Ascension Island has no resident population and relies on communications and military for income generation, general marine biodiversity does not currently contribute a great deal to the economy or standard of living. However, marine biodiversity is important for quality of life on the island and is used recreationally by many islanders for snorkelling, diving and fishing with fishing being an important part of St Helenian culture.

## **6. Project support to Gender equity issues**

The Ascension Island Government and other island bodies already comply with gender equality regulations. It is not expected that the AIMS project or marine biodiversity results will contribute towards any future issues.

## **7. Monitoring and evaluation**

Progress towards project outcomes is continually monitored by the Project Officer, overseen by the Project Leaders, and matched against the agreed Logframe (Annex 2). This, in turn, is discussed at regular internal meetings (AIGCD) with the AIMS team, Project Leaders and DoF being in attendance. The results and discussions from these meetings are frequently fed back to Dr Paul Brickle (SAERI) and other project partners where appropriate, with the agenda for such video conferences often following the Logframe structure.

## **8. Lessons learnt**

With the difficulty of retaining, and subsequently replacing, members of the project team, the value of appointing suitable staff has been appreciated this year. However, all staff employed were well qualified, experienced and had lived in small communities before. It is difficult to predict how life on Ascension will suit different people, and so we can only work to ensure that support is given to help new staff to settle and integrate. The impact of delays in equipment procurement and shipping has also been fully recognised and will be considered when planning future objectives.

## **9. Actions taken in response to previous reviews (if applicable)**

N/A

## **10. Other comments on progress not covered elsewhere**

N/A

## **11. Sustainability and legacy**

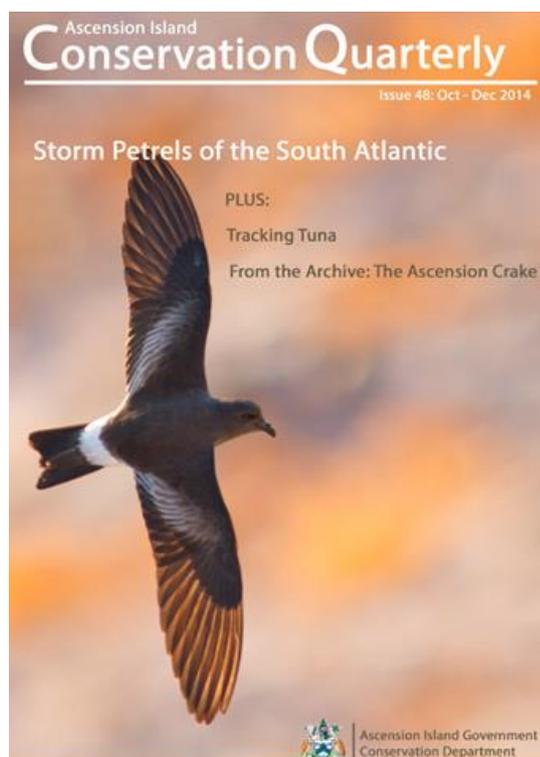


From the onset, the project has generated interest in the marine environment from the public, both on-island and overseas via social media. Marine issues are frequently a topic of discussion in the local community and an understanding of the need to maintain biodiversity is spreading. The AIMS project team are well known and recognised around the Pierhead and Georgetown, with fishermen taking a keen interest in how and why samples are being collected. As already discussed, policy for the offshore marine area of Ascension remains uncertain, with options for well-managed fisheries or Marine Protected Area(s) still being evaluated. The marine data collected by the AIMS team and the protocols that are put in place for future monitoring and

sampling will play a key role in informing the strategy and in evaluating the progress of any decisions.

## 12. Darwin Identity

Throughout the project, every effort has been made to publicise the Darwin Initiative. Equipment that has been purchased using some funding from the project has been given a Darwin logo sticker. Awareness of the Darwin Initiative has been raised locally with members of the public frequently enquiring as to the nature of the body. The Darwin Initiative logo has been included on all publicity and media materials including newspaper articles, online videos and the publication Conservation Quarterly. Many of these are available through the Conservation Department website (<http://www.ascension-island.gov.ac/government/conservation>), Facebook ([www.facebook.com/AscensionIslandConservation](http://www.facebook.com/AscensionIslandConservation)) and Twitter pages (@AIGConservation). The Facebook page receives a significant amount of attention and regular updates are well received by the public.



## 13. Project Expenditure

As agreed with Darwin and approved by Defra (email dating 28/09/2014), the following changes were agreed to the budget, along with a 3 month project extension.

	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

**Table 1 Project expenditure during the reporting period (1 April 2014 – 31 March 2015)**

Project spend (indicative) since last annual report	2014/15 Grant (£)	2014/15 Total Darwin Costs (£)	2014/15 Total Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs					Staffing changes have resulted in increased costs, mainly relating to relocation fees. These have been absorbed by AIG.
Consultancy costs					N/A
Overhead Costs					N/A
Travel and subsistence					N/A
Operating Costs					N/A
<b>Capital items:</b> Equipment Consumables					N/A
Others: Shipping					Shipping charges are very difficult to estimate as they are based on volume rather than weight. Freight charges were significantly more than estimated but have been absorbed by AIG.
<b>TOTAL</b>	<b>138,915.00</b>	<b>138,915.00</b>	<b>151,012.10</b>		

**14. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes**

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

## Annex 1:

Project summary	Measurable Indicators	Progress and Achievements April 2014 - March 2015	Actions required/planned for next period
<p><b>Impact</b></p> <p>By drawing on existing expertise from within the South Atlantic UKOTs, this project aims to substantially increase Ascension Island's marine biodiversity knowledge and fisheries science capacity, informing the development of the Biodiversity Action Plan for marine taxa, and providing the science base needed for sustainably managed inshore and offshore fisheries.</p>			
<p><b>Outcome</b></p>			
<p><b>Output 1.</b> Establishment of a Fisheries and Marine Science Unit on Ascension Island</p>	<p>AIG employment records. A fit-for-purpose marine and fisheries laboratory is operating.</p>	<p>Full details in Section 3.1 Progress in carrying out project activities</p>	
<p>Activity 1.1 Project Officer appointed to lead the project.</p>		<p>Achieved</p>	
<p>Activity 1.2 2 x Marine Technicians appointed.</p>		<p>Achieved</p>	
<p>Activity 1.3 Existing laboratory facilities are enhanced and outfitted with the necessary equipment for fisheries research.</p>		<p>Achieved</p>	
<p>Activity 1.4 Project Staff (x3) are trained in marine survey techniques and the use of fisheries equipment</p>		<p>Achieved</p>	
<p><b>Output 2.</b> Existing marine biodiversity and fisheries data are consolidated.</p>	<p>The metadata catalogue will be circulated to stakeholders and made available on project and partner websites.  Definitive databases will be created and hosted on AIG's system and within SAERI's IMS and GIS centre.</p>	<p>Full details in Section 3.1 Progress in carrying out project activities</p>	
<p>Activity 2.1. Review of existing data relating to Ascension's marine biodiversity and fisheries</p>		<p>Literature archived, species list generated, 2 reports on fisheries commissioned and received</p>	
<p>Activity 2.2. Collation of extant marine biodiversity and fisheries data and the</p>		<p>Structure agreed, work in progress</p>	

creation of a metadata catalogue.		
Activity 2.3. Creation of databases to house marine biodiversity and fisheries-related data collected previously, during this project and in the future.		Structure agreed, work in progress
<b>Output 3.</b> Gaps in inshore & offshore marine biodiversity baselines are addressed.	Quarterly reports and papers submitted to peer-reviewed journals, circulated to stakeholders and made available on project and partner websites.	Full details in Section 3.1 Progress in carrying out project activities
Activity 3.1 At least 12 inshore monitoring sites are established and surveyed on a monthly basis using underwater visual census and the collection of still and video imagery.		9 months out of 12 completed
Activity 3.2 At least 12 settlement plates are installed and photographed monthly to monitor the recruitment of sessile marine invertebrates.		Deployed and 1/12 monthly photographs completed
Activity 3.3 Samples identified and/or sent to taxonomic specialists, resulting in the completion of species inventories for marine fishes, invertebrates and plants.		On-going
Activity 3.4 Offshore vessel provides data from side scan sonar, epibenthic sleds and drop down cameras.		Scheduled September 2015
Activity 3.5 Library created for geo-referenced video and still image data that will be collected and analysed.		9 months completed
<b>Output 4.</b> Marine habitats are classified and mapped.	Reports circulated to stakeholders and available on project and partner websites. GIS mapping of marine habitats	Full details in Section 3.1 Progress in carrying out project activities
Activity 4.1 A fine scale habitat classification system for intertidal, sublittoral and offshore areas is developed and rigorously tested.		Work in progress from benthic quadrat and side scan sonar data
Activity 4.2 Habitats will be classified for all areas sampled quantitatively and be incorporated into GIS for mapping		Side scan sonar in progress, 4/28 segments completed
<b>Output 5.</b> Understanding of the age, growth and reproductive biology of the main inshore commercial fish species is significantly advanced.	Quarterly reports and papers submitted to peer-reviewed journals, circulated to stakeholders and made available on project and partner websites.	Full details in Section 3.1 Progress in carrying out project activities
Activity 5.1 Project staff (x3) and interested stakeholders are trained in collecting otoliths, gonad samples and biometric data.		Achieved
Activity 5.2 At least 1600 otoliths and 400 gonad samples will be processed.		More than 900/1600 otoliths collected, approx. 450 otoliths mounted and sectioned, ~200 sections read. ~300 gonad samples collected and fixed, ~80

		sectioned and stained.
Activity 5.3 Growth curves, annual reproductive cycles and age-at-maturity of at least 4 commercially-exploited inshore fish species are established.		On-going
<b>Output 6.</b> A strategy for the on-going monitoring and management of Ascension's inshore line and vessel fisheries is developed and implemented.	Reports circulated to stakeholders and available on project and partner websites.  AIG inshore fisheries licensing register.	Full details in Section 3.1 Progress in carrying out project activities
Activity 6.1 A review exercise is carried out coupled with stakeholder and partner consultation through public meetings.		Inshore and offshore reports by Cefas commissioned and received as part of AIG fishery policy review.
Activity 6.2 A licensing scheme and a scheme for reporting of catch and effort in the inshore fisheries are implemented.		2 public meetings, 2 meetings of Inshore Advisory Committee held
<b>Output 7.</b> Understanding of resource dynamics in the offshore fishery is significantly advanced.	Quarterly reports and papers submitted to peer-reviewed journals, circulated to stakeholders and made available on project and partner websites.	Full details in Section 3.1 Progress in carrying out project activities
Activity 7.1 Geospatial analyses of existing ICAAT data are carried out to improve understanding of spatial and temporal variability in the abundance of commercial species		Part of Cefas offshore fishery review and internal AIMS analysis
Activity 7.2 Predictive models (with environmental data e.g. sea surface temperature measurements) are developed to explain patterns of distribution and abundance.		Remote sensing data obtained and GIS layers created
Activity 7.3 At least 400 mechanical tags and 20 PAT tags are deployed on (chemically marked oxytetracycline [20mg/kg] for growth validation) pelagic fish (e.g. tuna and marlin) in the line/sport fishery to improve understanding of a) the spatial and temporal distribution of fisheries resources, and b) the behaviours of these fishes, in particular seasonal migrations.		5/13 MiniPATs deployed, ~30 PIMA mechanical tags deployed in pelagic species.
<b>Output 8.</b> Initial by-catch risk assessments for seabirds, turtles and sharks in the commercial fishing fleet are completed and on-going observer capacity established.	AIG employment records.  Visiting observer trip report.  Reports/ papers submitted to peer-reviewed journals, circulated to stakeholders and made available on project and partner websites.	Full details in Section 3.1 Progress in carrying out project activities
Activity 8.1 AIG employ an at-sea observer.		Ascension offshore fishery under review

Activity 8.2 AIG observer receives on-the-job training from experienced visiting observer (employed by RSPB).		Ascension offshore fishery under review
Activity 8.3 Geospatial analyses of seabird and turtle tracking data in conjunction with VMS and catch, effort and location data derived from ICAAT are conducted to examine potential overlaps.		Ascension offshore fishery under review
Activity 8.4 By-catch risk assessments ground-truthed by the at-sea observer monitoring over 250,000 hooks.		Ascension offshore fishery under review
<b>Output 9.</b> Project team completes tasks and prepares long-term exit strategy	Reports circulated to stakeholders and available on project and partner websites.	Full details in Section 3.1 Progress in carrying out project activities
Activity 9.1 At least 3 SAPs and 2 HAPs for marine biodiversity are developed within the NBAP framework.		On-going
Activity 9.2 All data are integrated into a GIS platform as a basis for future marine spatial planning.		On-going
Activity 9.3 Final Project report submitted and a policy paper on inshore fisheries produced for AIG		On-going

## Annex 2 Project's full current logframe

Activity	No of Months	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Output 1 Establishment of a Fisheries and Marine Science Unit on Ascension Island</b>													
1.1 Appointment of Project Officer	2	■											
1.2 Appointment of Marine Technicians	2	■											
1.3 Creation of a marine and fisheries laboratory	3	■											
1.4 Training of Project Staff in marine survey techniques and the use of fisheries equipment	4	■	■										
<b>Output 2 Existing marine biodiversity and fisheries data are consolidated</b>													
2.1 Review of existing data relating to Ascension's marine biodiversity and fisheries	3	■	■										
2.2 Creation of a metadatabase catalogue	2			■									
2.3 Creation of databases to house marine biodiversity and fisheries related data	3			■									
<b>Output 3 Gaps in inshore and offshore marine biodiversity baselines are addressed</b>													
3.1 Monthly surveys of inshore monitoring sites	12	■	■	■	■	■	■	■	■				
3.2 Installation and monthly photographing of settlement panels	12	■	■	■	■	■	■	■	■				
3.3 Complete species inventories for marine fishes, invertebrates and plants	3							■					
3.4 Collection of offshore biodiversity data by offshore vessel	2			■				■					
3.5 Analyses of video and still image data	4	■	■	■	■	■	■	■	■				



7.1	Geospatial analyses of existing ICAAT data are carried out	1.5																
7.2	Development of predictive models to attempt to explain patterns of distribution and abundance	1.5																
7.3	Deployment of at least 400 mechanical tags and 20 PAT tags are on pelagic fish (e.g. tuna and marlin) in the line/sport fishery	1.5																
Output 8	<b>Initial by-catch risk assessments for seabirds, turtles and sharks in the commercial fishing fleet are completed and on-going observer capacity established</b>																	
8.1	AIG employ an at-sea observer, to be funded in the long-term by the sale of licences	1																
8.2	AIG observer receives on-the-job training from experienced visiting observer (employed by RSPB)	2																
8.3	Geospatial analyses of seabird and turtle tracking data in conjunction with VMS and catch, effort and location data derived from ICAAT conducted to examine potential overlaps	2																
8.4	By-catch risk assessments ground-truthed by the at-sea observer monitoring over 250,000 hooks	6																
8.5	Circulation of report to stakeholders and development into a peer-reviewed paper(s)	3																
Output 9	<b>Project team completes tasks and prepares long-term exit strategy</b>																	
9.1	Development of at least 3 SAPs and 2 HAPs for marine biodiversity within the NBAP framework	3																
9.2	Integrated of data into a GIS platform as a basis for future marine spatial planning	2																
9.3	Submission of final project report and production of a policy paper on inshore fisheries for AIG	3																

### Annex 3 Standard Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
3	<i>No. of people to attain other qualifications</i>  <b>AIGCD Staff Training:</b> RYA Powerboat training, Sea Survival (STCW95), SCUBA diving qualifications	Male & Female	British, Irish, St Helenian	0				5 (0%)  (planned for Year 2)
5	<i>No. of people to receive at least one year of training</i>  <b>Youth Trainees</b>	Female	St Helenian	0.5				1 (50%)
7	<i>No. of training materials to be produced for use by host country</i>  <b>Training manuals</b> for a) otolith and gonad sample collection/ processing and b) for fish tagging			0				1 (0%)
9	<i>No. of SAP/ HAPs produced</i>			0				5 (0%)
10	<i>No. of field guides produced</i>			0				1 (0%)
11A/11B	<i>Papers to be submitted for publication in peer-reviewed journals</i>			0				5 (0%)
12A/12B	<i>No. computer based databases to be established and enhanced</i>			0				2 (0%)
13A/13B	<i>No. of species reference collections to be established and enhanced</i>			1				4 (25%)
14A/14B	<i>No. of conferences/ seminars to be organised/ attended to disseminate findings</i>  JNCC conference held on Ascension Island, AIMS			1				2 (50%)

	project presented						
20	<i>Estimated value of physical assets to be handed over to host country</i>			£52,086			£52,086 (100%)
21	<i>No. of permanent facilities to be established and continued</i>  Marine and Fisheries Unit in AIG Conservation Department			1			1 (100%)
22	<i>No. permanent field plots to be established and continued</i>			9			9 (100%)

#### **Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)**

##### **Checklist for submission**

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	X
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	X
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number.	X
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	