Darwin Initiative 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	20009
Project Title	**Delivering an MPA network for fisheries and biodiversity for Central Africa (Republic of Congo and Gabon)**
Host Country/ies	Republic of Congo and Gabon
Contract Holder Institution	University of Exeter (**UoE**)
Partner institutions	Conkouati-Douli National Park, Congo (**CDNP**) Ministry of Forest Economy and Sustainable Development (**MEFDD**) Wildlife Conservation Society, Congo Country Programme (**WCS-RoC**) Agence National des Parcs Nationaux, Gabon (**ANPN**) Partenariat pour les Tortues Marines du Gabon (**PTMG**) Wildlife Conservation Society, Gabon Country Programme (**WCS-GAB**)
Darwin Grant Value	£294,226
Start/end dates of project	April 2013 – October 2015 (30 months)
Reporting period (eg Apr 2013 – Mar 2014) and number (eg Annual Report 1, 2, 3)	April 2013 – March 2014: Annual Report 1
Project Leader name	Prof. Brendan J. Godley and Dr. Matthew Witt
Project website	http://darwininitiativecentralafrica.wordpress.com/ http://www.seaturtle.org/tracking/?project_id=924
Report author(s) and date	Dr Kristian Metcalfe, Prof. Brendan J. Godley and Dr Matthew J. Witt – 25th April 2014

1.   Project Rationale

The Republic of Congo and Gabon have significant natural resources with potential for poverty alleviation. However, whilst substantial efforts have been focused on land, marine biodiversity has often been neglected. Although, capacity building in the Republic of Congo was supported in part by the Darwin Initiative Project *Darwin Marine Biodiversity Action Plan for Gabon* (**17-005**) it outlined a number of priority research areas that were required to enhance the management of marine resources, promote sustainable livelihoods and the conservation of marine vertebrates (many covered by **CITES**

and **CMS**), for which the region is globally important. This project thus has four key themes to address these priorities: (i) capacity building and training; (ii) characterising marine fisheries; (iii) marine biodiversity monitoring and surveys; and (iv) marine spatial planning. The overall aim of which is to increase awareness among stakeholders and the general public as to the importance of marine biodiversity and sustainable fisheries in the region; and so support the development of a scientifically evidenced, representative MPA network that meets national and international conservation targets, whilst maintaining fish stocks and minimising impacts on competing sectors. In particular, this project will focus on the sustainable community fisheries across both nations, with a specific emphasis on the Conkouati Douli National Park (**CDNP**) that extends to the border of Gabon and its major marine protected areas (MPA) complex Mayumba National Park (**Figure 1**) that if extended holds tremendous potential as being ecologically significant as well as forming an excellent study area for monitoring the success of extended MPA initiatives.
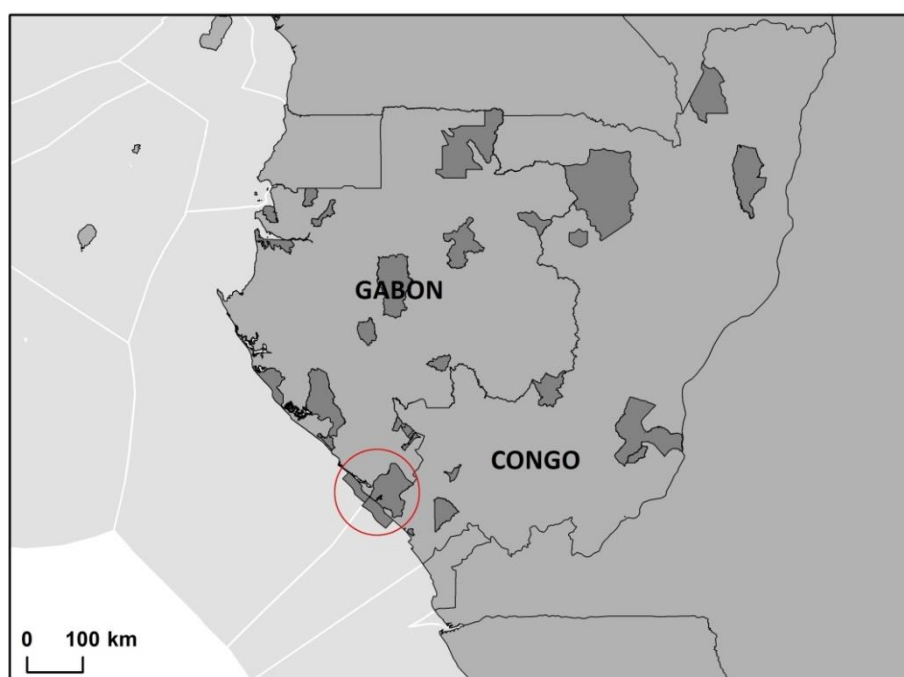
Figure 1. Darwin Initiative Project region showing distribution of existing protected areas, and the location of Mayumba and Conkouati Douli National Park in Gabon and the Republic of Congo (red circle). Exclusive Economic Zones (light grey polygons).

2.   Project Partnerships

At the end of the first year, the partnerships are demonstrably strong, with significant progress having been made in building relationships and collecting relevant data to help meet the objectives of the project . The Darwin Research Fellow (**DRF**) Kristian Metcalfe and Darwin Field Officer (**DFO**) Dominic Tilley have spent a significant proportion of time in country since the project commenced in April 2013 (*Gabon: September 2013 – December 2013 Republic of Congo: May 2013 and February 2014 – May 2014*) and so have maintained an excellent working relationship with project partners through their extensive presence. During periods where they have not been present in-country the relationship with project partners has been maintained through conference calls and email circulation lists.

In the Republic of Congo the partner organisations are the Ministry of Forest Economy and Sustainable Development (**MEFDD**) who facilitate all aspects of project work inside National Parks, Conkouati-Douli National Park (**CDNP**) where the **DRF** and **DFO** are based, and the Wildlife Conservation Society, Congo Country Programme (**WCS-RoC**) who provide logistical support for project activities in-country. The previous Conservator of **CDNP** Mr Roland Missilou Boukaka left his post in December

2013, and has been replaced by Mr Dengui Jean-Claude who has been very supportive of the work conducted to date, and in ensuring that we are able to carry out the work as previously planned.

Additional Relationships: Through recent in-country fieldwork the Darwin Initiative Project has established a close working relationship with the Comité de Gestion des Ressources Naturelles (**COGEREN**) an NGO comprised of local stakeholders involved in the management of **CDNP**. Cementing a good relationship was important as it ensured that all local communities inside the park were aware of the role of Darwin Initiative Project and associated research necessary to help meet its objectives. Representatives from **COGEREN** are also helping local staff extend the research beyond the park limits, with a specific focus on ensuring that all fishing communities are incorporated into future decisions. The information collated on artisanal fisheries (see Section 3.4) will be used by staff from **WCS-RoC** and **MEFDD** in association with **COGEREN** to help investigate how livelihoods can be improved.

In Gabon the partner organisations are the Agence National des Parcs Nationaux (**ANPN**), Partenariat pour les Tortues Marines du Gabon (**PTMG**) and the Wildlife Conservation Society, Gabon Country Programme (**WCS-GAB**) who facilitate all aspects of project work and provide logistical support for project activities in-country. These relationships are clearly demonstrated by the fact that the **DRF** and **DFO** with help from these and several other organisations completed the first coastal transect of Gabon (see Activity 1.2 Section 3.1). In addition, **ANPN** and **WCS-GAB** continue to work closely with staff from the University of Exeter (**UoE**) to identify and fill research gaps that address current political needs to help support the development of an extensive national MPA network (see Activity 1.5 Section 3.1).

Additional Relationships: Through recent in-country field work the Darwin Initiative Project has built further on collaborations with a number of local organisations that promote biodiversity conservation in-country. These include Aventures sans Frontières (**ASF**) **FONDATION LIAMBISSI**, **IBONGA** and World Wide Fund for Nature, Gabon Programme (**WWF-GAB**).

3.   Project Progress

3.1   Progress in carrying out project activities

Output 1. Increasing Marine Protected Areas

Activity 1.1. Training of local partners:
To augment field data collection the **DRF** and **DFO** maintained an active schedule of training in both host countries. This has specifically involved assisting **PTMG** and **ASF** in Gabon to deliver training workshops on sea turtle nest site monitoring. This workshop was held in Pongara National Park in September and was attended by ~30 staff from **ANPN**, **ASF**, **FONDATION LIAMBISSI**, **PTMG**, and **WCS-GAB** who are responsible for monitoring key nesting beaches in Gabon.

In addition, local field staff at three nesting sites received further training on the attachment of satellite transmitters to nesting female Ooive ridley sea turtles, further enhancing and building on the theory based training provided by **PTMG** and **ASF**. This involved working with local staff from 6 in country partner organisations (**ASF**, **IBONGA**, **FONDATION LIAMBISSI**, **PTMG**, **WCS-GAB**, and **WWF-GAB**) to deploy 10 satellite-linked GPS data loggers on the vulnerable olive ridley (*Lepidochelys olivacea*) sea turtle at Pongara National Park and two new locations where nesting females had not been previously tracked (Port-Gentil and Gamba). This work was designed to help develop a more detailed understanding of the relative density of at-sea habitat use to allow for more effective marine spatial planning efforts in support of marine protected area design, fisheries management and petrochemical exploration activities. Please visit the project website for photos of training/workshops and local staff

deploying satellite transmitters, detailed information on current movements of the 10 turtles can be viewed on seaturtle.org.

Regarding training to enhance capacity for marine spatial planning (Darwin Marine Atlas / GIS data layer development) see Section 1.5.

Activity 1.2. Field Data Collection:
In addition to the satellite tracking work, the **DRF** and **DFO** in collaboration with several partner organisations (**ANPN**, **ASF**, **IBONGA**, **FONDATION LIAMBISSI**, **PTMG**, **WCS-GAB**, **WWF-GAB**) completed the first coastal transect of Gabon surveying ~ 600 km of coastline from Pongara National Park to the Gabon Congo border frontier for the presence of nesting Leatherback (*Dermochelys coriacea*) and Olive Ridley (*Lepidochelys olivacea*) sea turtles. This transect filled gaps in current knowledge by surveying areas that are not currently monitored throughout the year, and provided further information on areas of human predation and turtle strandings. These data thus add to the expanding database on the nesting density and inter-nesting and migratory movements of sea turtles in Gabon gathered as part of the previous Darwin Project **Darwin Marine Biodiversity Action Plan for Gabon (17-005)**. Please visit the project website for photos of staff undertaking the coastal transect.

Tim Collins (**WCS**) in collaboration with several regional partners (and exploration companies) has compiled a cetacean sighting database, pulling together >10 years of survey work undertaken in the Republic of Congo and Gabon that will contribute to more effective marine spatial planning efforts in support of marine protected area design. More recently he has compiled a stranding database that when combined with the artisanal fisheries data (see Activity 2.3) can be used to identify potential areas of conflict, and thus where possible management interventions should be employed (helping contribute towards Activity 2.5 Management Interventions - due to start in Year 2).

Activity 1.3. Awareness raising:
To help meet our project goals and outcomes, in particular, promote awareness of marine biodiversity in Central Africa the Darwin Project has developed a dedicated website which details the project aims and rationale, highlighting the importance of research in both host countries (translated into both English and French). This website clearly articulates the importance of how data gathered as part of this project will contribute to the development of an ecologically coherent and representative network of MPAs. For more information on this website see Section 9.

Activity 1.4. Assembling Darwin Marine Atlases:
As articulated in the Project Half Year Report we have adopted the same format and structure for the Darwin Marine Atlases for the Republic of Congo and Gabon as that developed by the previous Darwin Project **Darwin Marine Biodiversity Action Plan for Gabon (17005)**. We felt that this was the sensible option because several project partners were involved in the development of the original atlas, and thus are aware of the structure and layout. These databases are continually being populated with the latest research data collected as part of Activities 1.1, 1.2, 2.3 and 3.2.

Activity 1.5. Marine Spatial Planning:
This work was initially planned for the end of the first year of the project leading into the second year and the identification of a candidate set of MPAs for each country, whilst this is still planned for the Republic of Congo, this phase of the project was brought forward in Gabon. This is largely due to increased knowledge on the importance of marine biodiversity in the region and the creation of **Gabon Bleu** an inter-ministerial commission initiated by the Government to help design a national network of marine protected areas (MPAs). As a result the **UoE** and **DRF** have been working closely with staff from **ANPN, WCS-GAB** and **Gabon Bleu** on the provision of GIS training and technical advice relating to marine spatial planning, and the application of the decision support tool Marxan (contributing to outputs

for Activity 1.1). This involved the **DRF** spending a total of 4 weeks in-house with staff from **Gabon Bleu** to help develop GIS data layers that were used to help inform Gabon's MPA network, and leading to a review process of a candidate set of MPAs. Training workshops for Republic of Congo are due to be held in the middle of year 2, as project partners are still in the process of identifying suitable candidates who have a reasonable level of experience to be able to undertake a basic GIS / marine planning course. Nonetheless, local field staff (5 in Republic of Congo and 5 in Gabon) have received basic GIS training relating to the deployment and collection of data from artisanal fisheries GPS trackers as part of Activities 2.2 and 2.3.

Output 2. Improving Artisanal Fisheries

Activity 2.1. Engagement:
In order to quantify and describe artisanal fisheries and their spatio-temporal extent Darwin Field staff and project partners are currently working with artisanal fishers from 11 landing sites in the Republic of Congo and 20 in Gabon. It is worth noting that Darwin field staff and project partners are continually engaging with fishers at other landing sites in-country to establish further relationships. However, these relationships take time to establish and so we envisage that new sites will continue to be incorporated into the field data collection programme throughout the duration of the project.

*Activity 2.2. Training & Activity 2.3. Field Data Collection*
At present the **DRF** and **DFO** have trained staff from **WCS-GAB**, **WCS-RoC** and **MEFDD** in the deployment of small GPS data loggers. This has specifically included training on how to set the units, house them so they are waterproof, and to download the data and incorporate results into an artisanal fisheries database developed with staff from **WCS-GAB**. Field data collection was separated into three components: (1) identifying location of all landing sites and number of boats in each host country; (2) deploying GPS data loggers to quantify and describe artisanal fisheries and their spatio-temporal extent; and (3) conduct socio-economic questionnaires to gain a better understanding of who is working in this sector, how, when and where they operate, processing and trade, and the threats to their livelihoods (see [Annex 4](#) for an English version of the questionnaire).

As articulated in the Half Year Report, the development of the questionnaire took longer than initially envisaged as we needed to work with partners from both the Republic of Congo and Gabon to ensure that we did not ask questions that would directly affect any relationships that have been established with fishing communities. Moreover, we needed to ensure consistency across the project area and thus questions had to be refined to address the dynamics of the fishing communities operating in both countries. Nonetheless, despite this slight delay fieldwork has progressed exceptionally well. For example:

Republic of Congo: to date the **DRF**, **DFO** and in country partners have completed components 1 – 3 of field data collection inside **CDNP**. That is to say all landing sites have been identified inside the park (n = 13), GPS data loggers have been deployed from each of the sites that are currently operating (resulting in GPS track logs for ~200 individual fishing trips; see **Figure 2**), and all of these sites have participated with the socio-economic profiling questionnaires. Outside of **CDNP** component further work is progressing to identify communities willing to take GPS loggers and participate with questionnaires. Local staff from **MEFDD**, **WCS-RoC** and representatives from **COGEREN** are due to start addressing components 1 - 3 outside the park in April and May 2014.

Gabon: to date, the **DRF**, **DFO** and in country partners have completed components 1 – 3. That is to say project partners through a range of surveys (aerial, desktop and field) have identified all small-scale artisanal landing sites in Gabon (n = 56), and deployed GPS data loggers from 20 of these sites (resulting in GPS track logs for ~225 individual fishing trips) and have undertaken socio-economic profiling

questionnaires at 4 sites distributed along the coast. These data have been analysed to produce the first spatially explicit data layer on spatial distribution and extent of artisanal fisheries in Gabon, and identify cumulative utilisation and thus pressure from the different gear types used along the coast. Further work is ongoing to increase the number of sites participating with both GPS tracking and socio-economic questionnaires.
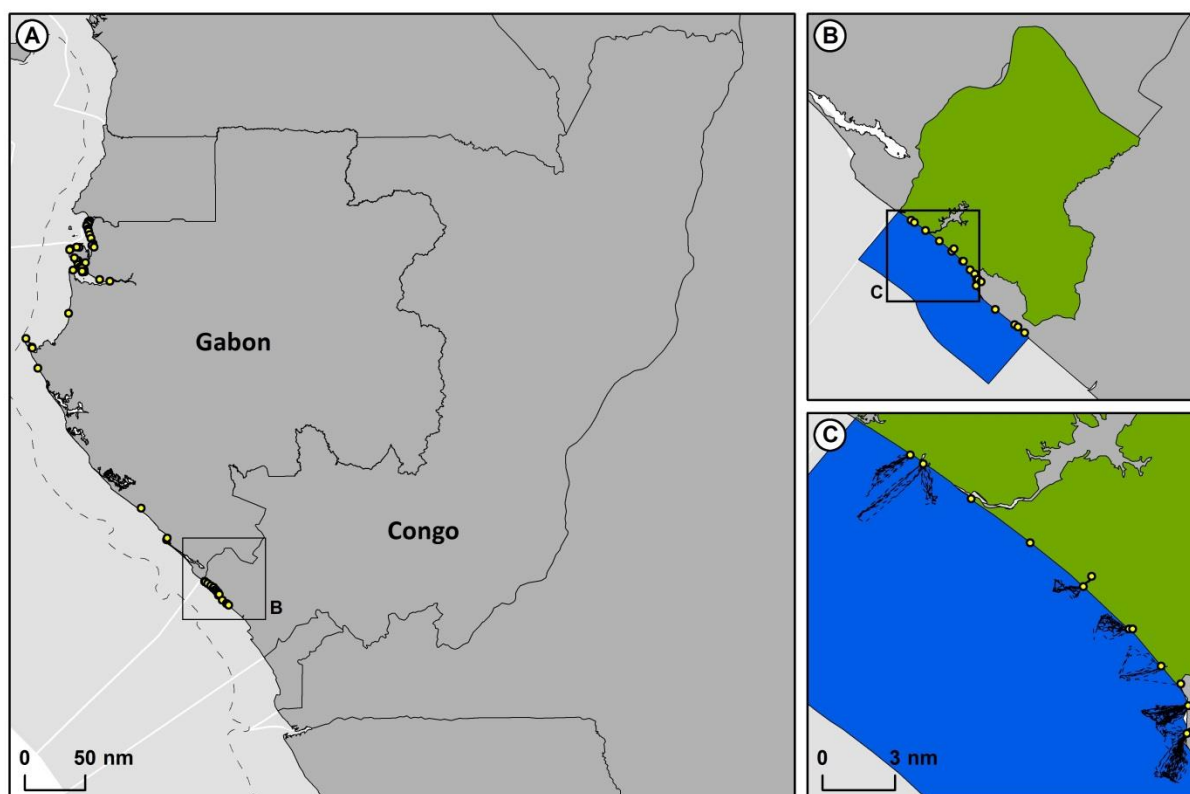
Figure 2. Artisanal fisheries from the Republic of Congo, inset (a) depicting location of landing sites along coast (yellow circles), (b) location of Conkouati-Douli National Park; and (c) GPS tracking data from inside the park.

Output 3. Reducing Bycatch

Activity 3.1. Raising Awareness & Activity 3.2. Field Data Collection:
As part of the artisanal fisheries socio-economic / profiling questionnaire that has been developed in collaboration with project partners (see Activity 2.3) we incorporated several questions to determine baseline levels of sea turtles, dolphins, sharks and rays captured by artisanal fisheries. Following, the completion of the questionnaires (so as not to impact on their results), we spend time with each community discussing the importance of these species, the problems associated with their exploitation and sustainable fishing practices. We also present the results of the tracking data to each site so that they are engaged and embedded in the process. For example, here we inform them on the average duration of their fishing trips, the max offshore distance attained, total trip distance, average speed, and depths at which they operate (and distribute maps to each landing site depicting the data they have participated in collecting).

From undertaking these questionnaire surveys we have confirmed that whilst artisanal fishers are aware that they are catching a range of these species (accidentally or targeted or both) they are often not able to identify them. Therefore, as part of further awareness raising we will be investing in and distributing species identification cards at landing sites, which will enable them to identify their catch and so better inform ongoing research by project partners at these sites in the future.

Output 4. Project Monitoring

Activity 4.1. Darwin Reporting & Activity 4.2. Steering Committee:
Please see Section 6.

3.2   Progress towards project outputs

The project is still in early stages; however, training, research and involvement of key stakeholders is well underway as demonstrated by the wealth of data being collected. Through the program of work conducted in year 1 we have collected a range of data that will allow us to produce a number of data layers that will help: (i) contribute to the development of an ecologically coherent and representative network of MPAs and (ii) ensure that livelihoods of poorest are incorporated into future decision making processes.

3.3   Progress towards the project Purpose/Outcome

We feel that at this early stage we are making strong progress towards stated purposes and outcomes, though it is too early to assess the full impact of the project. We feel strongly that the baseline socio-economic data and distribution maps of artisanal fisheries in particular clearly demonstrate that we are making excellent progress towards ensuring that the livelihoods of the poorest will be incorporated into future decision making processes (see section 3.4).

3.4   Goal/ Impact: achievement of positive impact on biodiversity and poverty alleviation

The goal of this project was to help alleviate poverty, increase food security and sustainable use of marine resources through an effective network of marine protected areas in the Republic of Congo and Gabon. This project is still in its early stages; however, in collaboration with project partners we have increased engagement with small-scale fishing communities (see Activity 2 and Annex 4). The information gathered to date is essential if both Governments are to develop and implement MPA networks that do not impact on their livelihoods. For example, the data gathered provide important information on: (i) number of fishers and boats in each country; (ii) profiles of the fishers involved such as age and nationalities; (iii) gear types and costs; (iv) fishing effort and target species; (v) bycatch estimates for sea turtles, dolphins, sharks and rays; (vi) transformation and commercialisation of catch; and (vii) their opinions on problems that have greatest impact on their livelihoods. In addition, the project has gained a specific insight into fishing behaviour (e.g. distance, duration, location) of where fishers operate through the deployment of GPS data loggers, resulting in the first spatially explicit data layers for artisanal fisheries in Gabon (with Congo shortly due for completion) thus ensuring that their important fishing grounds will not be excluded from future policy decisions (see example of GPS data in **Figure 2**). These data will also serve as a baseline from which we can compare the impact of future management interventions introduced at a project level or through national policies, and can also be used to assess the evolving nature of these communities in future.

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

The project is currently is still at an early stage, nonetheless the work undertaken is intended to support the Republic of Congo and Gabon meet obligations under three of the following major biodiversity conventions:

Convention on Biological Diversity (CBD): In particular, capacity building initiatives, such as the development of GIS data layers for the Marine Atlases and technical expertise and training (GIS, field data collection and biodiversity monitoring) provided by project partners and key Darwin Staff will help

increase awareness of the values of biodiversity in the region and how it can be conserved and sustainably used (*CBD Article 5: Cooperation; Article 6: General Measures for Conservation and Sustainable Use; and Article 7: Identification and Monitoring; Article 8: In-situ conservation; Article 12: Research and Training; Article 13: Public Education and Awareness raising; Article 14: Impact Assessment*). In particular, the data gathered herein can be used to help both Governments fulfil obligations to the *Strategic Plan for Biodiversity 2010 – 2020* in particular providing the skills and information to support the development of and ecologically coherent and representative network of MPAs (*Aichi Target 11*) that enhances benefits to all by ensuring the livelihoods and well-being of the poorest are safeguarded and incorporated into future decision making processes (*Aichi Target 14*).

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Through the life cycle of the project raising awareness on the value of biodiversity will increase the profile of sea turtles and cetaceans in the region (**CITES Appendix I**) and so help ensure that these species are incorporated into future policy decisions.

Conservation of Migratory Species of Wild Animals (CMS): Through field data collection and biodiversity monitoring surveys this project helping to fulfil obligations under **The Memorandum of Understanding (MoU) concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa** by specifically: (i) monitoring existing nesting sites; (ii) identifying important nesting sites that have not been previously monitored; and, (iii) identifying important migratory routes and corridors for olive ridley (*Lepidochelys olivacea*) and leatherback sea turtles (*Dermochelys coriacea*) through the deployment of satellite transmitters (n = 10) and a national coastal transect. In addition, to sea turtles this project is also contributing to obligations under **The Memorandum of Understanding (MoU) Concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia** through the collation of a regional sightings and stranding database that can be used to infer the spatial distribution and threats across the region, which can be used to target future monitoring efforts.

5. Project support to poverty alleviation

Please see section 3.4 for further information on the data that has been collected to ensure that small-scale artisanal fishing communities who are often amongst the poorest in this region will be represented in future decision making processes.

6.   Monitoring, evaluation and lessons

This first report demonstrates our progress to date. As articulated in the main bid, the progress of the project against key milestones and indicators is appraised by a Steering Group made up of partner organisation that will be held twice each year. Formal meetings with project leader (Prof. Brendan Godley) and the **DRF** have so far been held with project partners in both the Republic of Congo (May 2013) and Gabon (October 2013) since the project commenced, thus ensuring that all partners have had the opportunity to discuss current progress and work plan for the current reporting year. In addition, there has also been regular communication among project partners with extensive presence of key Darwin Staff in both host countries (see section 2). Additional meetings in-country with either Prof Brendan Godley and Dr Matthew Witt (PIs) in attendance are being planned for the forthcoming reporting year April 2014 – March 2015.

7.   Actions taken in response to previous reviews (if applicable)

N/A – First Annual Report

8.   Other comments on progress not covered elsewhere

We do not foresee any major additional risks.

9. Sustainability

The work undertaken by all partner organisations has been widely disseminated and publicised through a variety of social media including twitter (using #DarwinInitiative and @Darwin_Defra to acknowledge funding sources) and Marine Turtle Research Group Facebook Group. In addition, the project has a dedicated website which details the project aims and rationale, in country partners, and ongoing research (translated into both English and French). As of April 2014 this site has been visited ~1000 times by persons from the UK, France, Greece, Germany, Switzerland, Netherlands, Belgium, Turkey, Spain, Brazil, Peru, Costa Rica, Uruguay, United States, Canada, Madagascar, Uganda, Gabon and Congo thus highlighting that the project (and therefore Darwin Initiative) has been reaching a wide audience (**Figure 3**).
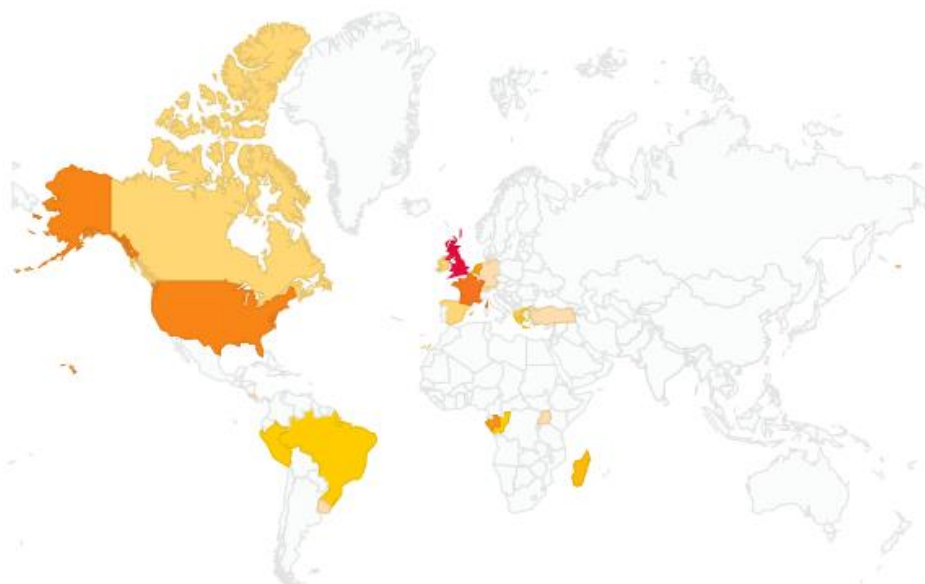
Figure 3. Number of countries visiting Darwin Project website (statistics as of 31st March 2014, darker shading indicates a higher number of site visits).

During the next year we envisage that the project website will become increasingly important for communicating the activities of the project and the partners. Thus further work to enhance the website, and so maintain momentum to increase awareness and promote the value of marine biodiversity in the region is ongoing.

10. Darwin Identity

The Darwin Initiative identity has been promoted in all actions relating to the project to date, including the project website and biodiversity monitoring data hosted on seaturtle.org. These resources clearly acknowledge the funding provided by Defra and the Darwin Initiative with links and logos to their respective websites. Darwin Initiative support was recognised as both a distinct project where it comprised the key funding partner in an action, e.g. support for year 1 (e.g. survey efforts), and as a collaborative partner in larger programmes where actions spanned topics of established efforts such as marine mammal and sea turtle monitoring (e.g. training). In both the Republic of Congo and Gabon the Darwin Initiative has a high profile as a result of this project building on the legacy of the previous Darwin Initiative Project *Darwin Marine Biodiversity Action Plan for Gabon* (**17-005**), particularly with local staff who are aware of the impact that this project will have on supporting increased capacity to help deliver better marine biodiversity protection in the region. In addition, the development of a dedicated website developed as part of this project further ensures that the Darwin Initiative is disseminated widely (to a national and international audience, see section 9 **Figure 3**).

11. Project Expenditure

Table 1 project expenditure <u>during the reporting period</u> (1 April 2013 – 31 March 2014)

Project spend since last annual report	2013/14 Grant (£)	2013/14 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
TOTAL	**112,458.00**	**112,404.735**	**<1%**	**NA**

Please note: At the time of reporting the **UoE** Finance Department are still completing the full financial report and so the numbers above may be subject to minor changes.

12. 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).

Images: As part of increasing awareness of biodiversity and the work being undertake in the region the project website hosts a number of photo galleries of field work with local partners (e.g. olive ridley Tracking and Coastal Transect), local biodiversity, and includes a select number of images from our participatory work with small-scale artisanal fishing communities in the Republic of Congo and Gabon.

Please contact Darwin Research Fellow, Dr Kristian Metcalfe kristian.metcalfe@exeter.ac.uk if there are any photos that you are specifically interested in using, which we would be happy to share.

Annex 1:   Report of progress and achievements against Logical Framework for Financial Year 2013-2014

Project summary	Measurable Indicators	Progress and Achievements April 2013 - March 2014	Actions required/planned for next period
Goal/Impact Poverty alleviation, increased food security, and sustainable use of marine biodiversity through an effective marine protected area network in Congo and Gabon.		▪ Significant steps have been made towards project aims in the YR 1 of a 2.5 year project.	
Purpose/Outcome Integrated and effective management of marine ecosystems in Central Africa (Congo and Gabon) as a result of a scientifically informed network of interconnected Marine Protected Areas (MPAs) that enhance ecological integrity while contributing to food security and poverty reduction in coastal communities in the region.	▪ Increased marine protection based on scientific evidence and participatory research. ▪ Increased knowledge and awareness of marine biodiversity and artisanal fisheries. ▪ Marine vertebrate bycatch in fishing communities reduced.	▪ Training, research and involvement of key stakeholders is well underway.	▪ Management interventions and participatory mitigation introduced at focal fishing communities. ▪ Additional research outputs (scientific papers and government reports). ▪ GIS workshops.
Output 1. Marine Protected Areas Partners trained in monitoring techniques, research and database use.	▪ Workshop / training / field work reports provided to Darwin and included on project website. ▪ Darwin Marine Atlas – Congo. ▪ Darwin Marine Atlas – Gabon. ▪ Candidate MPA networks. ▪ Website hits (and international audience) / Media items. ▪ Government Reports / Scientific Papers.	▪ Progress good and indicators generally appropriate.	
Activity 1.1. Training		▪ Underway.	

		▪ 4 weeks in-house training / GIS data layer development with Gabon Bleu.
		▪ 2 GIS workshops planned for close of YR 2.
Activity 1.2. Field data collection		▪ Underway.
Activity 1.3. Awareness Raising		▪ Website Established (including field reports).
		▪ Gabonese Press Coverage on Olive Ridley Sea Turtle Tracking work.
Activity 1.4. Preparation of Darwin Marine Atlases		▪ Underway.
Activity 1.5. Marine spatial planning		▪ Underway.
Activity 1.6. Policy paper		▪ Planned for YR 2.
Activity 1.7. Peer reviewed paper		▪ Planned for future (YR 3).
Output 2. Artisanal Fisheries: Increased knowledge of artisanal fisheries.	▪ Workshop / training / field work reports provided to Darwin and included on project website. ▪ Number of fishing communities participating/collaborating in fieldwork. ▪ GIS data layers. ▪ Artisanal fisheries action plan. ▪ Website hits (and international audience) / Media items ▪ Government Reports / Scientific Papers.	▪ Progress good and indicators generally appropriate.
Activity 2.1. Engagement with fishers		▪ Underway (currently at 11 sites in Republic of Congo and 20 in Gabon)
Activity 2.2. Training in data collection		▪ Underway (2 training workshops completed; 1 in Republic of Congo and 1 in Gabon). Further workshops / training planned for YR 2 and YR 3.
Activity 2.3. Field data collection		▪ Underway (currently at 11 sites in Republic of Congo and 20 in Gabon)

Activity 2.4. Fisheries Management Plans		▪ Underway.
Activity 2.5. Management Interventions		▪ Planned for YR 2.
Activity 2.6. Peer Reviewed Paper		▪ Planned for future (YR 3).
Output 3. Reducing Bycatch: Marine vertebrate bycatch in fishing communities is reduced as a result of participatory research and awareness raising.	▪ Workshop / training / field work reports provided to Darwin and included on project website. ▪ Number of fishing communities participating/collaborating in fieldwork. ▪ Website hits (and international audience) / Media items. ▪ Government Reports / Scientific Papers.	▪ Progress good and indicators generally appropriate.
Activity 3.1. Awareness Raising		▪ Website Established. ▪ Underway (currently at 11 sites in Republic of Congo and 20 in Gabon) ▪ Gabonese Press Coverage on Olive Ridley Sea Turtle Tracking work.
Activity 3.2. Field data collection		▪ Underway (currently at 11 sites in Republic of Congo and 20 in Gabon)
Activity 3.3. Participatory Mitigation		▪ Planned for YR 2.
Activity 3.4. Peer Reviewed Paper		▪ Planned for future (YR 3).
Output 4. Project Monitoring	▪ Darwin Reporting. ▪ Steering Group Meetings.	▪ Progress generally very good and indicators appropriate.
Activity 4.1. Darwin Reporting		▪ All reporting to date was undertaken in a timely manner, effectively drawing together project for appraisal.
Activity 4.2. Steering Group Meetings		▪ Steering group meetings were undertaken during each field visit by UK staff and followed up with e-mail correspondence and Skype.

Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of Verification	Important Assumptions
Goal/Impact			
Poverty alleviation, increased food security, and sustainable use of marine biodiversity through an effective marine protected area network in Congo and Gabon.			
Sub Goal: The marine biodiversity of the Republic of Congo and Gabon is preserved for future sustainable use.	▪ MPA network increased in Republic of Congo and Gabon. ▪ Artisanal fisheries incorporated into decision making processes. ▪ Marine vertebrate bycatch reduced.	▪ Government reports / legislation relating to designation of MPAs and artisanal fisheries. ▪ Data from governmental and non-governmental monitoring programs.	
Purpose/Outcome: Integrated and effective management of marine ecosystems in Central Africa (Congo and Gabon) as a result of a scientifically informed network of interconnected Marine Protected Areas (MPAs) that enhance ecological integrity while contributing to food security and poverty reduction in coastal communities in the region.	▪ Increased marine protection based on scientific evidence and participatory research. ▪ Increased knowledge and awareness of marine biodiversity and artisanal fisheries. ▪ Marine vertebrate bycatch in fishing communities reduced.	▪ Enhanced capacity for marine spatial planning. ▪ Continued monitoring. ▪ Continued engagement with fishing communities. ▪ Reports and publications by partner organisations.	▪ Government remains supportive of MPA designation. ▪ Fishing communities and host governments retain commitment to sustainable use of marine resources. ▪ Host countries remain politically stable. ▪ Retention of key staff / ability to appoint replacements. ▪ No major economic changes / anthropogenic disasters that could affect fisheries management.
Output 1: Marine Protected Areas Partners trained in monitoring techniques, research and database use.	▪ Training of field staff and local project partners. ▪ GIS database. ▪ Species and habitat maps.	▪ Workshop / training / field work reports provided to Darwin and included on project website. ▪ Darwin Marine Atlas – Congo.	▪ Trained individuals remain in employment with partner organisations.

	▪ Artisanal fisheries maps. ▪ Increased knowledge and awareness.	▪ Darwin Marine Atlas – Gabon. ▪ Candidate MPA networks. ▪ Website hits (and international audience) / Media items. ▪ Government Reports / Scientific Papers.	
***Output 2:* Artisanal Fisheries** Increased knowledge of artisanal fisheries.	▪ Training of field staff and local partners. ▪ Fisheries engaged in participatory research. ▪ Fishing distribution and effort maps. ▪ Socio-economic profile of fishing communities. ▪ Increased knowledge and awareness.	▪ Workshop / training / field work reports provided to Darwin and included on project website. ▪ Number of fishing communities participating/collaborating in fieldwork. ▪ GIS data layers. ▪ Artisanal fisheries action plan. ▪ Website hits (and international audience) / Media items. ▪ Government Reports / Scientific Papers.	▪ Trained individuals remain in employment with partner organisations. ▪ Partners provide and share data. ▪ Good working relationships are maintained with fishing communities.
***Output 3:* Reducing Bycatch** Marine vertebrate bycatch in fishing communities is reduced as a result of participatory research and awareness raising.	▪ Training of field staff and local partners. ▪ Fisheries engaged in participatory research. ▪ Decline in capture rates / animals released. ▪ Number of fishers agreeing to change fishing techniques / employ mitigation. ▪ Increased knowledge and	▪ Workshop / training / field work reports provided to Darwin and included on project website. ▪ Number of fishing communities participating/collaborating in fieldwork. ▪ Website hits (and international audience) / Media items. ▪ Government Reports / Scientific Papers.	▪ Trained individuals remain in employment with partner organisations. ▪ Partners provide and share data. ▪ Good working relationships are maintained with fishing communities. ▪ Effective, appropriate measures can be defined for the fisheries and species.

	awareness of regions marine vertebrates and problems of bycatch.		
***Output 4:* Project Monitoring**	▪ Darwin reporting. ▪ Steering group meetings.	▪ Darwin reports. ▪ Minutes of meetings.	

Activities: (details in work plan)

1.1 Training
1.2 Field data collection
1.3 Awareness raising
1.4 Preparation of Darwin Marine Atlases
1.5 Marine spatial planning
1.6 Policy paper
1.7 Peer reviewed paper

2.1 Engagement with fishers
2.2 Training in data collection
2.3 Field data collection
2.4 Fisheries management plans
2.5 Management interventions
2.6 Peer reviewed papers

3.1 Awareness raising
3.2 Field data collection
3.3 Participatory mitigation
3.4 Peer reviewed papers

4.1 Darwin reporting
4.2 Steering group meetings

Annex 3 Standard Measures

Table 1   Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for reporting period	Total planned during the project (% target reached so far)
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	15				15	10	20 (75%)
6B	Number of training weeks to be provided.	6				6	3	6 (100%)
7	Number of (ie. different types - not volume - of material produced) training materials to be produced for use by host country.	2				2	2	2 (100%)
8	Number of weeks to be spent by UK project staff on project work in the host country (**Republic of Congo**).	16				8	8	26 (61%)
8	Number of weeks to be spent by UK project staff on project work in the host country (**Gabon**).	24				12	8	26 (92%)
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country (**Republic of Congo**).	0				0	0	2 (0%)
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing	0				0	0	2 (0%)

Ref	Item							
	agencies in the host country (**Gabon**).							
11A	Number of papers to be published in peer reviewed journals.	2				0	0	3 (66%)
11B	Number of papers to be submitted to peer reviewed journals.	2				0	0	3 (66%)
12A	Number of computer based databases to be **established** and handed over to the host country (**Republic of Congo**).	0				0	0	1(0%)
12B	Number of computer based databases to be **enhanced** and handed over to the host country (**Gabon**).	0				1	1	1(100%)
14A	Number of conferences/seminars/ workshops to be **organised** to present/disseminate findings (**Republic of Congo**).	0				0	0	1(0%)
14A	Number of conferences/seminars/ workshops to be **organised** to present/disseminate findings (**Gabon**).	0				0	0	1(0%)
15A	Number of national press releases in host country(ies).	1				1	0	2 (50%)
15C	Number of national press releases in UK.	1				0	0	2 (50%)
17A	Number of dissemination networks to be **established** (**Republic of Congo).**	1				1	1	1(100%)
17B	Number of dissemination networks to be **enhanced/ extended** (Gabon).	1				1	1	1 (100%)
20	Estimated value (£'s) of physical assets to be handed over to host country(ies).	24,100				24,100	8692	8692 (300%)
22	Number of permanent field plots to be	>200				>200	50	>400%

	established during the project and continued after Darwin funding has ceased.							
23	Value (£'s) of resources raised from other sources (i.e. in addition to Darwin funding) for project work.							na
New - Project specific measures	Number of project websites to be produced.	1						na
New - Project specific measures	Estimated circulation of website (hits).	1000						na
New - Project specific measures	Estimated circulation of website (countries).	19						

Table 2   Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Available from (eg contact address, website)
Journal	**Pikesley SK, Maxwell SM, Pendoley K, Costa DP, Coyne MS, Formia A, Godley BJ, Klein W, Makanga-Bahouna J, Maruca S, Ngouessono S, Parnell RJ, Pemo-Makaya E, Witt MJ** (2013) On the front line: integrated habitat mapping for olive ridley sea turtles in the southeast Atlantic. **Diversity & Distributions** 19:1518-1530	http://www.seaturtle.org/PDF/PikesleySK_2013_DiversityDistrib.pdf
Journal	**Fossette S, Witt MJ, Miller P, Nalovic MA, Albareda D, Almeida AP, Broderick AC, Chacon-Chaverri D, Coyne MS, Domingo A, Eckert S, Evans D, Fallabrino A, Ferraroli S, Formia A, Giffoni B, Hays GC, Hughes G, Kelle L, Leslie A, Lopez-Mendilaharsu M, Luschi P, Prosdocimi L, Rodriguez-Heredia S, Turny A, Verhage S, Godley BJ** (2014) Pan-Atlantic analysis of the overlap of a highly migratory species, the leatherback turtle, with pelagic longline fisheries. **Proceedings Royal Society B** 281	http://www.seaturtle.org/PDF/FossetteS_2014_ProcRSocB.pdf

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

This may include outputs of the project, but need not necessarily include all project documentation. For example, the abstract of a conference would be adequate, as would be a summary of a thesis rather than the full document. If we feel that reviewing the full document would be useful, we will contact you again to ask for it to be submitted.

It is important, however, that you include enough evidence of project achievement to allow reassurance that the project is continuing to work towards its objectives. Evidence can be provided in many formats (photos, copies of presentations/press releases/press cuttings, publications, minutes of meetings, reports, questionnaires, reports etc) and you should ensure you include some of these materials to support the annual report text.

The following have been included and or appended to this Annual Report:

- **Figure 2** *(Page 6)*: Artisanal fisheries GPS tracking data from the Republic of Congo.

- **Figure 3** *(Page 9)*: Number of countries visiting Darwin Project website.

- **Annex 4a** *(Page 21)*: Press Releases of olive ridley and leatherback sea turtle satellite tracking.

- **Annex 4b** *(Page 22 - 28)*: Rapid assessment protocol for small-scale artisanal fisheries.

- **Annex 4c** *(Page 29 - 36)*: Meeting Minutes for Republic of Congo (x2) and for Gabon (x2).

Checklist for submission

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