Darwin Initiative Annual Report

Darwin Project Information

Project Ref Number	17-005
Project Title	Darwin Marine Biodiversity Action Plan for Gabon
Country(ies)	Gabon
UK Contract Holder Institution	University of Exeter
Host country Partner Institution(s)	Ministry of Forestry, Water, Fisheries & Agriculture (**MEFEP**; Fisheries Directorate)
Other Partner Institution(s)	Agence National des Parcs Nationaux (**ANPN**) Partenariat pour les Tortues Marines du Gabon (**PTMG**) SEATURTLE.org (**ST.org**) Wildlife Conservation Society **(WCS)**
Darwin Grant Value	£299,746
Start/End dates of Project	October 2009 – March 2012
Reporting period	October 2009 to 31st March 2010
Project Leader (s) Name	Dr Brendan J. Godley and Dr. Annette C. Broderick
Project website	http://www.seaturtle.org/mtrg/projects/gabon/
Author(s) and main contributors, date	Drs. Brendan Godley and Matthew Witt 5th May 2010

1. Project background

Gabon has significant natural resources with potential for poverty alleviation *i.e.* ecotourism and sustainable fishing. Although substantial efforts have been focussed on terrestrial conservation, the country's marine biodiversity has been largely neglected, despite considerable offshore oil exploitation and exponential increases in fishing pressure.

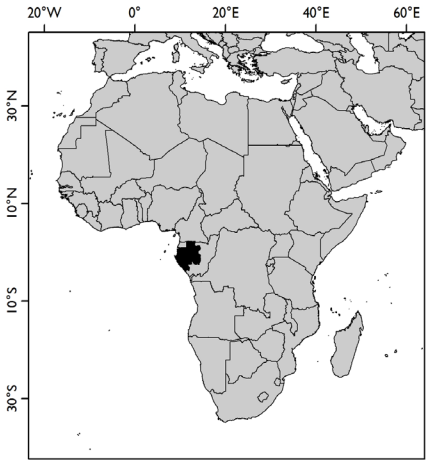

Figure 1. Gabon (filled polygon) and the African continent.

Key marine biodiversity includes:

Major fishing resources: these are currently exploited through a nationalised industrial trawling fleet and concessions to international fleets. There is marked under-capacity for spatial management and assessment/mitigation of bycatch which has the potential to be significant.

Globally important marine turtle populations: the world's single largest rookery for the leatherback turtle (tens of thousands of nests annually and animals use UK waters in St Helena/ Ascension Island); also regionally important, yet under-researched, nesting of olive ridley turtles and regionally important foraging sites for green and hawksbill turtles subject to harvest.

Globally important, yet understudied, marine mammal populations: species include humpback whales; Atlantic humpback dolphins and West African manatees.

There is a clear need for a national **Marine Biodiversity Action Plan** (MBAP) integrating all available information on the spatial distribution of biodiversity and threats. The MBAP will deliver: 1) increased local capacity to undertake research to further inform the development and implementation of the MBAP, and 2) increased awareness among key stakeholders and the general public as to the importance of marine biodiversity. The following document describes the first year's activities of the Darwin Gabon MBAP project.

2. Project partnerships

Project partnerships: The lead in-country partner for the Gabon MBAP is The Ministry of Forestry, Water, Fisheries and Aquaculture (MEFEP; Principle Contact, Mrs Carole Ogandagas). The Ministry has responsibility for fisheries related aspects of the MBAP project, including work related to the fisheries vessel monitoring system (VMS) and the fisheries observer programme. The Ministry also plays a key role in liaising with other Government organisations including Agence National des Parcs Nationaux (ANPN), Centre National de la Recherche Scientifique et Technologique, Centre National des Données et de l'Information Océanographiques (CNIDO) and the Gabonese Navy. Further partner organisations in the Gabon MBAP include the Partnership for Marine Turtles in Gabon (PTMG), who facilitate aspects of project work concerning marine turtles (including work in Congo, Equatorial Guinea, São Tome) in addition to Seaturtle.org and the Wildlife Conservation Society (WCS), who provide logistical support for MBAP project activities in Gabon. Our relationship with project partners is maintained through periods of in-country field work and by an email circulation list, e-mails and telephone, during the next year in the future newsletters and the MBAP project website will become increasingly important for communicating the activities of the MBAP project. Formal meetings with partners are held during periods of in-country fieldwork when project staff are present.

Additional Unforeseen Collaboration: The MBAP project is now collaborating with the National School of Water and Forests (ENEF), which is the Gabonese Government training school for Water and Forestry management. ENEF are responsible for training all National Parks managers and technical advisors. This relationship was facilitated by collaboration on a Gabon MBAP work theme *i.e.* satellite tracking green turtles, during a recent in-country fieldwork visit. Other collaborators include Aventures Sans Frontiers (ASF), a Gabonese NGO concerned with the protection of habitats and species. ASF assist with MBAP activities in Pongara National Park in the north of Gabon, primarily relating to work on sea turtles.

At the end of the first year, the partnerships are demonstrably strong, with significant progress having been made across the board.

3. Project progress

3.1 Progress in carrying out project activities (1-4)

We are on or ahead of schedule on all key outputs.

Output 1. Partners trained in monitoring, research and database use

1.1 Workshops

1.1.1 Visioning workshop

In partnership with the WCS and the Wallace Foundation, the Darwin project hosted a two day workshop on key coastal species for the Congo Basin in March 2010. The workshop included 50 key stakeholders from Government, Business, NGO's and National press. The aim was to (i) synthesize existing knowledge, and critically, identify knowledge gaps for the CBC key species and (ii) initiate strategic partnerships to improve our knowledge of these key species in order to guarantee their conservation. During the first day, on the state of knowledge of the five key species of the CBC, the available information on the species status and the gap analysis were presented, participants discussed the information available on the species. During day two, priority areas for further research and conservation were identified underlining the importance of the extant aims of the Darwin Project.

1.1.2. GIS/VMS workshop

Following preliminary discussions in December 2009, a one week training workshop was delivered on GIS applications for VMS data in March 2010. The training package capitalised on the expertise of UoE in handling VMS datasets. Training was delivered to six key members of MEFEP, who were determined to be competent GIS users and worked in departments most applicable to the use of VMS data for

informing fisheries management. Time was also spent installing ArcGIS software for the training programme, investigating export options in the VMS MetaFishery software and ascertaining the exact GIS competence levels of the people subsequently trained in VMS analysis. Training materials included pre-constructed ArcGIS mapping project documents.

1.1.3. Fisheries observer workshop

There is growing interest in operating fisheries observer schemes throughout the West African region, partly driven by the FAO and by the US Government through several of their funding programmes. These efforts run parallel to work introducing bycatch reduction devices, such as Turtle Excluder Devices (TEDs), into trawl fisheries. The potential installations of TEDs for example, is driven by increasing environmental awareness of the effects of trawling on non-target species, but also the industrialisation and commercialisation of West African fisheries to meet the demands of customers in Europe, Asia and North America, .

An initial meeting was held by the UoE MBAP project team with all interested parties within MEFEP during December 2009. The meeting was attended by those who have been involved in earlier efforts to instigate a long-term bycatch observer scheme within Gabon. The meeting provided a useful opportunity to gather information on 1) likely obstacles, 2) likely costs of operating an observer scheme that would have a legacy longer than the Gabon MBAP project, 3) expectations and aspirations of the Fisheries Directorate and 4) reasons why previous efforts have failed.

With this knowledge it has been decided that the financial resources of the Gabon MBAP project will be best capitalised through collaboration with the US National Oceanic and Atmospheric Agency (NOAA) Bycatch Observer Programme (Dr Manjula Tiwari, South West Fisheries Science Centre, La Jolla, California, US). We will collaborate closely with NOAA to provide advice and training in UoE specialist areas, including megavertebrate species identification, data collection and analysis. Training for the fisheries observed programme is currently planned for autumn-winter 2010.

1.1.4. In-water fieldwork skills training

As an integral part of a two week field bout in Corisco Bay, March 2010, four field workers were trained in in-water survey techniques *i.e.* transects for marine organisms and habitat mapping, GPS use, marine turtle handling and research techniques - including morphometrics, genetics sampling, flipper and satellite tagging. This work will be further extended in 2010-11 as equipment funds originally marked for an all terrain bike and trailer at Mayumba National Park that are no longer needed. Local partners have requested the resource be channelled into further research into Corisco Bay green turtles, which preliminary analysis of VMS data highlights as a very heavily fished area, likely subject to bycatch pressure.

1.2 Darwin Graduate Trainee identified

The host country Darwin graduate trainee has been identified by MEFEP, we are however still in discussions with the Ministry on the best way to deliver training within the available budget. MEFEP is currently preparing documents to ensure the release of the identified candidate from Ministry related activities for the period of MSc education that will occur in the UK or in France. Final discussions will be held during Godley's visit to Gabon in May 2010.

1.3 Darwin Project Officer identified

Within the budget, the project partners felt that these resources would be better spent on a number of key field assistant posts in addition to some admin backup.

Darwin Field Officer (Corisco Bay) Innocent Ikoubou
Darwin Field Officer (Corisco Bay) Armando Villarubia
Darwin Clerical Assistant (Libreville) Heaven Deribe
Darwin Field Officer (Nesting Beaches) Floriane Cardiec
Darwin Field Officer (Nesting Beaches) Joan Ikoum Ngossa
Darwin Field Officer (Nesting Beaches) Didier Agambouet

1.4 Conference attendance by Darwin staff

Attendance of project staff is planned for International Sea Turtle Society in April 2010 to be held in Goa where UoE staff will present data on offshore density estimation of leatherback sea turtles during the leatherback breeding season and to contribute to a workshop on satellite telemetry techniques for marine turtles and participate in the African regional meeting.

Output 2. Increased knowledge of the marine biodiversity of Gabon to inform decision makers

2.1 Geographic Information System (GIS) database

A prototype GIS geodatabase has been constructed, which has been populated with all available in-hand data, including aerial survey counts of marine turtle nesting events at a 500 m long-shore resolution. Georeferenced positions of marine turtle nesting events gathered over several years of intense night-time monitoring conducted at dedicated monitoring locations. In addition, environmental data layers have been prepared for inclusion into the geodatabase, these include bathymetric data and monthly layers of sea surface temperature and chlorophyll concentration. We are in discussion with project partners on data format to allow inclusion of other extant data layers

2.2 VMS data analysis

During the reporting period we have worked with MEFEP to understand their VMS system, including the system's operational capability, the composition of the fishing fleet that carry VMS transmitting beacons, typical behaviour of the fleet so to aid future interpretation of VMS outputs and MEFEPs desired outcomes from this work theme. This is progressing well.

2.3 Fisheries observer programme

Planning is underway and training workshops planned for autumn 2010 (see above; 1.1.3)

2.4 Marine vertebrate monitoring

Marine turtles

During December 2009, the Gabon MBAP Project (UoE, PTMG & ASF) deployed satellite tracking units on two female leatherback turtles nesting in Pongara National Park in the north of Gabon. The data from these satellite tags will contribute to wider efforts to follow the movements of leatherback turtles in coastal and oceanic habitats of the South Atlantic. These data add to existing efforts by MBAP partners to describe movements of leatherback turtles in habitats adjacent to protected areas of Gabon (Witt et. al.2008 Oryx).

In-country fieldwork during March 2010 included the deployment of satellite transmitters on juvenile green turtles in Corisco Bay. This population of green turtles is likely to be under considerable pressure from fisheries, both artisanal and industrial, particularly as the region is bordered by two countries (Gabon and Equatorial Guinea) with differing legislation regarding the capture and consumptive use of marine turtles (both incidental and intended). Following an initial survey of the Corisco Bay region by UoE and PTMG during December 2009, a work plan was formulated, this included: 1) financing the employment of two local PTMG staff as Darwin Field Officers to continue dock side monitoring of marine turtle captures, including the collection of genetic samples, and 2) training of in-water marine turtle capture and ecological surveying techniques for marine vertebrates.

During March 2010, UoE & PTMG deployed six satellite transmitters to follow the movements of juvenile green turtles within Corisco Bay. Satellite tracking fieldwork was considered to be immensely successful with opportunities arising for National press exposure and radio and television coverage. Gabon MBAP partners invited local dignitaries to a release ceremony to further local collaboration and community support. This work also facilitated the attendance of a student intern from ENEF, who will use collected data collected *e.g.* habitat data, environmental data and satellite tracking data, to conduct a final year research project on habitat preferences of green sea turtles. In addition to this work, genetic sampling of net and rodeo captured hawksbill and green sea turtles was undertaken, these and future tissue

vouchers will contribute to a greater understanding of the genetic diversity and likely source rookeries of juveniles aggregating to forage in Corisco Bay.

During the main nesting season of leatherback turtles the Gabon MBAP funded aerial survey estimates of nesting on three occasions (Dec. 09 – early season, Jan. 10 – mid-season and Feb. 10 – late season). These surveys add to those undertaken in previous years and provide an additional opportunity to identify spatially explicit threats to sea turtle nesting.

Project staff have been quantifying threats posed by logs to marine turtles nesting habitats. These logs have broken free from rafts of felled trees floated down rivers, significant water-ways and estuaries of Gabon to large freight boats offshoe, from logging concessions in the interior of Gabon. Previous work indentified these stray logs as potential hazards to nesting by blocking access to preferred habitats and trapping other individuals in areas of high density logs. There was little knowledge on spatio-temporal variation in log presence and patterns of log stranding along the Gabon coastline and of turtle mortalities away from nesting beaches subject to intensive nightly monitoring during the nesting season. Data on log locations gained from aerial surveying footage have now been gathered and incorporated into the prototype GIS geodatabase.

Supported within the Darwin Project, PTMG staff have continued to engage with regional partners in neighbouring west African countries of Equatorial Guinea, Republic of the Congo and Sao Tome:

Equatorial Guinea (Oct. 09, Feb. 10). *Activity*: supervision and collaboration with INDEFOR's turtle project TOMAGE and capacity-building of local turtle technicians

Congo (Nov. 09). *Activity*: training in nesting data collection by beach foot patrols at key nesting sites with the Wildlife Conservation Society and Conkouati-Douli National Park (CDNP) turtle project, and collaborations with Renatura a local NGO operating within CDNP and beyond.

Sao Tome (Nov. 2009). *Activity*: collaboration with Marapa for the genetic sampling of marine turtles encountered on nesting beaches.

Marine mammals

Progress has been made towards efforts to describe the spatio-temporal distribution of marine mammals in the Gabon coastal zone. The MBAP project financed two preliminary aerial surveys of the Gabon coastline during the reporting period to ascertain the effectiveness of this method to provide temporally and spatially appropriate data on marine mammal distribution. These surveys were partly successful but have highlighted problems with detectability of small cetaceans, such as humpback dolphins in near-shore waters that are typically dynamic and of low clarity. These surveys were conducted in December 2009 and February 2010. Given these concerns we will revise our approach prior to undertaking further work. Cetacean data will represent a valuable input for the biodiversity mapping theme of the Gabon MBAP.

2.5 Scientific papers

The first project paper has been published (*Biological Conservation*) has been published and two additional papers have been submitted (*Animal Behaviour* and *Journal of Applied Ecology*).

2.6 Darwin conference

This will be a focus of later efforts when the projects findings and initiatives are further advanced.

2.7 Marine Biodiversity Action Plan

All current work is focussed on underpinning the drafting of this MBAP.

Output 3. Increased awareness of the marine environment

3.1 Website established

The Gabon MBAP website went live in January 2010, as material becomes available it will be hosted on the website. To date it hosts the project's first publication, links to satellite tracking data and media outputs. In future it will also include Darwin newsletters, a Darwin image library (under-construction) and species distribution maps.

3.2 Production of Darwin Newsletters

The first newsletter is due for June 2010 as the project start date was moved.

3.3 Press releases in Gabon and UK.

We have issued three press releases in Gabon and one in the UK resulting in significant media coverage in Gabon, the UK and internationally.

3.3 Darwin Seminars for key stakeholders

These will appear later in the project but to date, through introductory meetings, the first Darwin Workshop and supporting media has raised the project profile considerably.

Output 4. Project monitoring

4.1 Darwin reporting

This first report demonstrates our progress to date.

4.2 Steering Group meetings

In December 2009 the first steering group meeting set the work plan for the rest of the reporting period allowing us to progress significantly with training and research initiatives. An additional meeting is planned during Dr. Godley's field visit in May 2010.

3.2 Progress towards project outputs

We are only 20% of the way through the project and are well on target to attain all project outputs, with 50% of more of target reached in 14/25 standard output criteria.

3.3 Standard measures

We have made excellent progress against standard reporting measures, being on target or ahead of schedule in all criteria.

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 this reporting period	Total planned from application
2	Number of people to attain Masters qualification (MSc, MPhil etc)	0				0	0	1
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	11				10	5	20
6B	Number of training weeks to be provided	11				10	10	40
7	Number of (i.e. different types - not volume - of material produced) training materials to be produced for use by host country (manuals, datasheets, ppts)	2				2	2	3
8	Number of weeks to be spent by UK project staff on project work in the host country	10				10	6	26
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	0				0	0	1
11A	Number of papers to be published in peer reviewed journals	1				1	1	4
11B	Number of papers to be submitted to peer reviewed journals	2				2	1	4
12A	Number of computer based databases to be **established** and handed over to host country	3				3	1	3
12B	Number of computer based databases to be **enhanced** and handed over to host country	1				1	1	3
14A	Number of seminars/ conferences/ workshops to be **organised** to present/disseminate findings	0				0	0	2

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for this reporting period	Total planned from application
14B	Number of conferences/seminars/ workshops **attended** at which findings from Darwin project work will be presented/ disseminated.	1				1	1	2
15A	Number of national press releases in host country(ies)	3				3	1	5
15C	Number of national press releases in UK	1				1	1	2
15D	Number of local press releases in UK	1				1	1	2
16A	Number of newsletters to be produced	0				0	0	4
16B	Estimated circulation of each newsletter in the host country(ies)							1000
16C	Estimated circulation of each newsletter in the UK							250
17A	Number of dissemination networks to be **established**	1				1	1	1
18A	Number of national TV programmes/features in host country(ies)	1				1	1	2
19A	Number of national radio interviews/ features in host county(ies)	1				1	1	2
19D	Number of local radio interviews/features in UK	1				1	1	1
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	£31, 000				£310 00	£31000	£61,519
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	>100				>100	50	100
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	£103 ,547					103547	£313,54 3
4A	Number of undergraduate students to receive training	1				1	0	0

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for this reporting period	Total planned from application
4B	Number of training weeks to be provided	2				2	0	0
New - Project specific measures	Press Outputs (Print/Internet)	12				12	0	0

Table 2 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
Journal	Witt MJ, Baert B, Broderick AC, Formia AC, Fretey J, Gibudi A, Moussounda C, Mounguengui GAM, Ngouessono S, Parnell RJ, Roumet D, Sounguet G-P, Verhage B, Zogo A, Godley BJ (2009) Aerial surveying of the world's largest leatherback turtle rookery: A more effective methodology for large-scale monitoring. **Biological Conservation** 142: 1719–1727	Elsevier	Project Website Publisher's website	Na

3.4 Progress towards the project purpose and outcomes

We feel that at this early stage, we are making strong progress towards stated purposes and outcomes.

It is too early to assess the full impact of the project. Important impacts on biodiversity that will influence the sustainable use of biodiversity benefits are at the core of the project.

4. Monitoring, evaluation and lessons

4.1 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

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 meet bi-annually. There is also regular communication among project partners, facilitated by an e-mail listserv and the field presence of the key Darwin Staff in Gabon. The key indicators that will show the progress of the project as catalysed by the launch of several ongoing initiatives. These include websites development, GIS database elaboration, VMS analysis, Fishery Observer Programme and launch of new marine vertebrate monitoring initiatives. All of these are clearly articulated and time stamped. To date all but Fishery Observer Programme are underway, with this initiative well into the planning phase.

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

This is our first report.

6. Other comments on progress not covered elsewhere

We do not foresee any major additional risks.

7. Sustainability

As detailed above the project has made considerable inroads to creating a profile in-country. There is strong buy-in from partners for the project, demonstrated by the number of initiatives we have been able to get off the ground in the first six months. The exit strategy will be the formulation of a spatially explicit marine biodiversity action plan which will act as a roadmap for further action in the seas of Gabon and its closest neighbours with which it shares so many biological resources. There is a stable endpoint in that capacity and awareness will have been raised to an all-time high with the launch of the marine BAP. Sustainability will depend on the ongoing commitment of the organisations that currently make up the consortium. This is highly likely given the sustained efforts made by all organisations to date. There will be considerable legacy aspects to this project including a marine biodiversity atlas/GIS database.

8. Dissemination

Dissemination efforts have been targeted at key stakeholders in government and business during the launch period of the project although media activity will have widened the impact. In the forthcoming year we plan to expand web, media and newsletter activity to increase the profile of the project.

9. Project Expenditure

Table 3. Project expenditure <u>during the reporting period</u> (Defra Financial Year 1 April 2008 to 31 March 2009)

Item	**Budget** (Renegotiated Stage 2 application)	Expenditure	Variance
Overhead			
Travel and Subsistence			
Operating Costs			
Capital Equipment Telemetry equipment			
Other Genetics			
Salaries (all in Gabon) Innocent Ikoubou Armando Villarubia Heaven Deribe Floriane Cardiec Joan Ikoum Ngossa Didier Agambouet			
TOTAL			

At the time of reporting, University of Exeter Finance Department are still completing the full financial report and the numbers above may be subject to minor changes before the official claim at the end of May.

Suffice to say there is only one major change to financial profile in that we were fortunate enough not to not need the salary cost and associated overhead for Dr Witt in this FY. Written approval was attained from LTS to transfer these sums into the next financial year to employ an additional UK specialist on a short term contract to be carried forward into 2010/2011. Thus, based on preliminary figures above, the project has a modest overspend that will be absorbed internally.

10. 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 LTS and 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).

A strong start: Political change in Gabon necessitated a delay in commencement by 6 months (agreed by LTS). However, as a result of strong partnerships and a tremendous commitment from local partners and UoE staff (3 staff members (Godley, Witt, McClellan); 10 weeks in Gabon), the project has proceeded apace and significant inroads have been made in training, outreach as well as research. We are exceptionally well placed to further strengthen the project in the next financial year.

Images: We have a number of excellent images of local partners involved with marine fieldwork that we would happily share.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2009/10

Project summary	Measurable Indicators	Progress and Achievements October 2009 - March 2010	Actions required/planned for next period
Goal: *To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve* *The conservation of biological diversity,* *The sustainable use of its components, and* *The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources*		*Significant steps have been made towards project aims in the first 6mo. Of a 2.5 year project.*	*(do not fill not applicable)*
Purpose Improved national and local capabilities applied to the sustainable and equitable management of marine biodiversity of Gabon	Marine Biodiversity Action Plan effectively enacted.	Training, research and involvement of key stakeholders is well underway	Fisheries observer programme progressed. Additional research outputs Darwin Research Student underway
Output 1. Partners trained in monitoring, research and database use	Training workshops Training of Darwin Conservation Officer and other local partners Training of Darwin Graduate Trainee to MSc Darwin Staff to international conferences	Progress generally good and indicators appropriate	
1.1 Workshops (1. Visioning; 2. GIS/VMS; 3. Fisheries Observer; 4. Inwater Monitoring; 5. Action Planning; Dates per workplan)		*3 of 4 workshops undertaken. Fisheries observer training planned.*	
1.2 Darwin Graduate Trainee identified		Candidate identified and terms being negotiated.	
1.3 Darwin Project Officer identified		A number of local people employed in key roles in the project.	
1.4 Conference attendance Darwin staff		Planned but just outside window of reporting	
Output 2. Increased knowledge of the marine biodiversity of Gabon to inform decision makers	GIS Database Marine Biodiversity Action Plan Species and habitat maps Darwin conference; Scientific Papers	Progress generally good and indicators appropriate	

2.1 GIS database established		Underway
2.2 VMS data under analysis		Underway
2.3 Fisheries observer programme underway		Planned
2.3 Marine Vertebrate monitoring underway		Underway
2.4 Scientific papers		Underway. One published, 2 in review.
2.5 Darwin conference		Planned
Output 3. Increased awareness of the marine environment	Website; newsletters; press releases; Workshops; Darwin conference	Progress generally good and indicators appropriate
3.1 Website established		Yes
3.2 Production of Darwin Newsletters		Next quarter
3.3 Press releases in Gabon and UK		3 in Gabon, 1 in UK, all successful
3.4 Darwin Seminars for key stakeholders		Planned for future
Output 4. Project monitoring	Darwin reporting Steering group meetings	Progress generally good and indicators appropriate
4.1 Darwin reporting		Effectively draws strands of project together for appraisal
4.2 Steering Group meetings		Excellent periodic format for project review

Annex 2 **Project's full current logical framework**

LOGICAL FRAMEWORK

17. Please enter the details of your project onto the matrix using the note at Annex 3 of the Guidance Note. This should not have substantially changed from the Logical Framework submitted with your Stage 1 application. Please highlight any changes. (Use no smaller than Arial 10 pt)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.			
Sub-Goal: The marine biodiversity of Gabon is well conserved for future sustainable use.	Fisheries observer programmes show reduced levels of marine vertebrate bycatch Marine fisheries effectively managed and illegal fisheries excluded from marine protected areas. Increasing populations of key marine taxa	Data from Ministry of Forestry, Water and Fisheries (MFWF) Surveillance by Gabonese Navy and National Parks, VMS data Data from governmental and non-governmental monitoring programmes	[redacted]
Purpose Improved national and local capabilities applied to the sustainable and equitable management of marine biodiversity of Gabon	Marine Biodiversity Action Plan effectively enacted.	Monitoring continued. Reports and publications by partner organisations	Central African Partner organisations incorporate new knowledge into future strategies and workplans. Continued political stability
Outputs 1. Partners trained in monitoring, research and database use	Training workshops Training of Darwin Conservation Officer and other local partners Training of Darwin Graduate Trainee to MSc Darwin Staff to international conferences	Workshop Reports Functioning fisheries observer programme and bycatch data MSc thesis	Trained individuals remain in employment by partner organisations.
2. Increased knowledge of the marine biodiversity of Gabon to inform decision makers	GIS Database Marine Biodiversity Action Plan Species and habitat maps Darwin conference; Scientific Papers	Outputs provided to Darwin; included on project website and reports	Partners provide and share data.

3. Increased awareness of the marine environment	Website; newsletters; press releases; Workshops; Darwin conference	Web hits Circulation of Darwin Newsletter Media Items Conference outputs	
4. Project monitoring	Darwin reporting Steering group meetings	Reports to Darwin Initiative Minutes of meetings	

Activities (details in workplan)

1.1 Workshops (1. Visioning; 2. GIS/VMS; 3. Fisheries Observer; 4. Inwater Monitoring; 5. Action Planning; Dates per workplan)
1.2 Darwin Graduate Trainee identified
1.3 Darwin Project Officer identified
1.4 Conference attendance Darwin staff

2.1 GIS database established
2.2 VMS data under analysis
2.3 Fisheries observer programme underway
2.3 Marine Vertebrate monitoring underway
2.4 Scientific papers
2.5 Darwin conference
2.6 Marine Biodiversity Action Plan

3.1 Website established
3.2 Production of Darwin Newsletters
3.3 Press releases in Gabon and UK
3.3 Darwin Seminars for key stakeholders
3.4 Darwin Conference

4.1 Darwin reporting
4.2 Steering Group meetings

Monitoring activities:
Indicator 1 – Minutes from 6-monthly Steering Committee meetings
Indicator 2 – Maps of fishing effort
Indicator 3 – Fisheries observer programme underway
Indicator 4 - New marine vertebrate monitoring underway

Annex 3 Supplementary material

Please note that a range of project outputs are available to browse on the project website Page is http://www.seaturtle.org/mtrg/projects/gabon/outputs.shtml

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Y
Is your report more than 5MB? If so, please advise Darwin-Projects@ltsi.co.uk that the report will be send by post on CD, 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.	