

Darwin Fellowship - Interim Report

(Please check guidance for submission deadlines, max 3 pages.)

Darwin Main Project Ref No	Darwin 17-012
Darwin Project Title	Belize large-mammal corridor project
Name of Darwin Fellow	EIDPS029: Said Manuel Gutierrez
UK Organisation	University of Southampton
Your Organisation(s)	University of Exeter, University of Belize Environmental Research Institute (ERI)
Your role within your Organisation	MSc Student at University of Exeter, Darwin Wildlife Biologist at the Environmental Research Institute
Start/end date of Fellowship	1 September 2012 to 30 September 2013
Location	University of Exeter, Cornwall Campus, Penryn Cornwall TR10 9EZ
Darwin fellowship funding (£)	£29,605
Type of work (eg research, training, other, please specify)	MSc Conservation and Biodiversity
Main contact in UK Organisation	Dr. Patrick Doncaster
Author(s), date	Said Gutierrez, 28 March 2013

1. Background

- Briefly describe your involvement in the Darwin project before the start of your fellowship.

I worked as the Darwin Junior Wildlife Biologist at the ERI on Darwin project #17-012. I worked closely with the project coordinators, receiving training and working to achieve the goals of the project. I was involved in collection and management of field data to investigate movement patterns and estimate density of mammal species using large-scale camera trapping, live trapping, sign surveys, radio telemetry, spatial analysis (GIS) and mark-recapture analysis. I was directly responsible for the telemetry in the field, working with field assistants from the local communities within the corridor, and with national and international interns. I was also responsible for maintaining the telemetry database, analysis of telemetry data and organising the field team. I represented the ERI and the Darwin project at various national meetings and workshops.

- Describe aim and objectives of the Fellowship, and programme of work

The Darwin Fellowship was awarded to undertake formal postgraduate study through an MSc in Conservation and Biodiversity at the University of Exeter. This complements the practical training in field work, data management and analysis that I have received during the Darwin Initiative Belize large-mammal corridor project. The combination of practical training on the Darwin project and the theoretical and analytical training in conservation science offered by the MSc will ensure that I return to Belize as a well-trained scientist, ready to work with the Environmental Research Institute, and to enact the legacy of the Darwin project.

- Briefly describe the roles of the UK and Fellow's institutions

The Centre for Biological Sciences at the University of Southampton aims to advance biological knowledge by research, communicate biological understanding through learning, and apply biological know-how for the benefit of society. The Centre hosted the Belize Large-Mammal Corridor Project (Darwin 17-012). Project leader Dr C. P. Doncaster provides advice on the fellowship research project during the study programme at Exeter University, and has extended the access to all Southampton electronic resources. These include electronic journals, Web of Science, JStore, and many other search tools and archives for global scholarship. This collaboration between Fellow and host institution will continue throughout the rest of the fellowship time.

The ERI of the University of Belize aims to build national capacity for effective management, sustainable use and conservation of Belize's natural resources. The Darwin Initiative Belize large-mammal corridor project is a model to build capacity in Belize. Young Belizeans with aptitude and motivation receive hands-on training in ecological research and applied conservation to foster a next generation of in-country experts. Having the Darwin Fellow further his education at the postgraduate level will strengthen the institutional capacity of the ERI and assist in upholding the mission and vision of the institute. The ERI has been supporting and will continue to support the Darwin Fellow in his pursuit of higher education and professional development and the institute will benefit greatly from newly acquired knowledge to impart to the greater cause of conservation in Belize.

2. Progress

- Provide a brief account of your work since the start of your fellowship, showing progress against the programme of work.

The start of the Fellowship in September 2012 set the foundation for numerous learning experiences for me as a Darwin Fellow. Settling into the rigorous life of an MSc student went smoothly and the course work started soon after arrival at the University of Exeter.

The MSc in Conservation and Biodiversity includes the following modules:

Key Skills (BIOM 4005), Ecological Census Techniques (BIOM 4021), Approaches in Evolutionary and Behavioural Ecology (BIOM 4018), Africa Field Course (BIOM 4015), Quantitative Biology (BIOM 4010) and the MSc research project (BIOM 4009). To date, BIOM 4005, BIOM 4021, BIOM 4018, BIOM 4015 and BIOM 4010 have been completed with results pending but completed successfully. Currently work is being focused on the MSc Research Project (BIOM 4009) which is due in at the end of July 2013 with evaluations through to September 2013 and upon completion will provide the final results and course marks. A total of 90 credits out of 180 credits have been completed for the MSc in Conservation and Biodiversity. The remaining 90 credits that remain correspond to the research project which is currently awaiting approval from the respective university departments and which is due to start in the second week of April 2013.

3. Achievements and Outcomes

- What have been the main achievements and outcomes to date, and how do they relate to the overall aim and objectives of the Fellowship.

Most of the course modules that were scheduled have been complete in due time. The theoretical training that I have received through the MSc course has greatly enhanced the understanding of analytical methods in ecology and conservation. I have been exposed to new global conservation issues and strategies that are relevant to my own country. A close look conservation practice in Kenya has broadened my perspective of current issues around the world and specifically to biodiversity rich countries like Kenya. Conservation is has evolved into a people friendly movement where ownership of conservation efforts are being placed in the hands of the ones that benefit directly from the natural resources. Exposure to new developments in ecology has been made possible through numerous seminars and guest lectures through the MSc programme. It has been exciting to learn of new and innovative means to conservation research in the UK and around the world. I have also had the opportunity to visit the headquarters of Fauna and Flora International in Cambridge and learn about the work being done worldwide and specifically in Belize. It has increased the level of networking and new acquaintances have been made in the process all for the benefit on my growing experience.

4. Next Steps

- Briefly describe forthcoming activities, events, milestones

For the remainder of the Fellowship I will be working full time on my MSc project which is the major focus of the programme in which newly acquired analytical skills will be employed. The next step forward in gaining much needed experience in conservation and ecology will be writing and reporting of results for scientific publication. All results will be written and compiled in accordance to Trends in Ecology and Evolution article formats. This is as specified by the guidelines of the MSc Research Projects at the Centre for Ecology and Conservation at the University of Exeter. Advice will be sought from my university advisor as well as from the main Principals in the Fellowship.

Visits to the University of Southampton for meetings with the primary UK contact are on schedule relevant to the MSc project work. The MSc project will be based on data collected from the Belize Large-Mammal Corridor Project (Darwin 17-012). Project work will involve the analysis of telemetry data for the estimation of home ranges and movement patterns of mammals within the Central Belize Corridor. All work will be done in collaboration with the ERI and the University of Southampton through Dr Patrick Doncaster. This work is in conjunction with the goals of continued work in the legacy of the main Darwin Project. The last milestone will be complete course work and provide a full report to the Darwin Fellowship Programme at the end of September 2013.