Darwin Fellowship - Final Report

(Please check guidance for submission deadlines, max 6 pages.)

Darwin Project Ref No.	EIDPS19
Darwin Project Title	Hanta Julie Razafimanahaka
Name of Darwin Fellow	Hanta Julie Razafimanahaka
UK Organisation	School of Biological Sciences Zoology Building Tillydrome Avenue University of Aberdeen Aberdeen AB24 2TZ
Your Organisation	Madagasikara Voakajy BP 5181 101 Antananarivo Madagascar
Your role in your Organisation	Research Project manager
Start/end date of Fellowship	01 September 2007/31 August 2008
Location	School of Biological Sciences University of East Anglia Earlham Road Norwich NR4 7TJ
Darwin Fellowship funding (£)	27,264
Type of work (e.g. research, training, other, please specify)	MSc course in Applied Ecology and Conservation
Main contact in UK Organisation	Prof. Paul Racey
Author(s), date	Julie Hanta Razafimanahaka Dr Diana Bell Prof. Paul Racey 30 September 2008

1. Background

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

In 2003/04, I was an undergraduate trainee on a Darwin project (16/10/024) during which I learned the basic essential field techniques to study and conserve endemic microchiropteran bats. Afterwards, I became a staff member on a Darwin post-project grant (EIDP10) which saw the creation of a new Malagasy biodiversity organisation called Madagasikara Voakajy. I was responsible for the management of our bat database, the environmental education project which involved collaborating with the Ministry of Education and Scientific Research and leading field surveys for bats. From 2006, I was the principal investigator in a study of habitat preferences, roost selection and hunting patterns of *Hipposideros commersoni*, the largest insectivorous bat of Madagascar.

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

  The aim of the Fellowship was to acquire a high standard of research and conservation skills through an MSc course in Applied Ecology and Conservation at the University of East Anglia (Norwich, UK). Among the skills to be learned were research design and planning, data analysis, population modelling, and conservation genetics. These were acquired through a six-month taught programme (September 07 – March 08), and a six months field research project which was presented as a thesis in August 08.

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

  The University of Aberdeen administers the project fund. I also received advice from Professor Paul Racey and Dr Richard Jenkins (University of Aberdeen), and Dr Diana Bell (University of East Anglia) on aspects related to living in the UK and during the research part of the programme.

- If you have undertaken a formal course of training, please provide a brief explanation of the course and a link to the course website if available.

  The course is a one-year programme aiming at providing the essential skills today's conservationists and ecologists require. The core subjects covered include statistics, ecological census techniques, research skills and current issues in conservation. Optional units allow improving knowledge and skills in Geographic Information Systems, population dynamics and modelling, conservation genetics, biodiversity conservation and human society, etc. The last six months of the course is devoted to a research project which involves the application of all the skills learnt, and is submitted as a thesis.

http://www1.uea.ac.uk/cm/home/schools/sci/bio/courses/postgraduates/Taught%2BCourses/aec

2. Achievements

- Summarise the work undertaken during your Fellowship. What were the main activities undertaken. Highlight any work undertaken but not originally planned and explain why this happened. Highlight any problems encountered and how they were overcome.

  The activities undertaken during the Fellowship included a week's field trip in September as an introduction to the conservation context in England, particularly in Norfolk, formal lectures followed by field and/or lab-based practical, and a research project. The modules I attended were: univariate and multivariate statistics, population dynamics and modelling, introduction to GIS, restoration ecology, research skills for ecologists, issues in conservation, and ecological census techniques. Each module was assessed by one or two courseworks.

  My research project was conducted in Mauritius where I assessed the habitat used by the endemic and threatened Mauritius cuckoo-shrike (*Coracina typica*) in the Black River Gorges National Park to evaluate the feasibility of a re-introduction of the species to the East Coast of the island.

  In March 08, I attended the Student Conference in Conservation Science at the University of Cambridge. I had already attended this conference in 2005 and really enjoyed the experience of meeting fellow students from around the world and discuss common interests. As I was living within easy reach of Cambridge, I wanted to renew this experience. I received funding from the Conservation Leadership Programme to attend the conference and I presented a poster on the environmental education project with which I was involved in Madagascar.

Reception of the research permit to conduct the field survey was delayed due to a longer application process within the Mauritius Government. Dr Diana Bell, the Mauritius Wildlife Foundation and the British High Commission in Mauritius intervened for us and I started my project at the end of April, four weeks later than planned.

- What have been the main achievements of your fellowship? Key documents should be annexed to this report.

  The main achievement of my fellowship is the degree of Masters in Applied Ecology and Conservation, although the official graduation will only be in July 2009 when the certificate will be obtained.

  The second achievement is the research project, which resulted in new recommendations for the conservation of the Mauritius cuckoo-shrike (Annexe 1).

  The third achievement is the prize won at the Student Conference in Conservation Science in Cambridge for the poster presentation (Annex 2).

3. Outcomes, lessons and Impact

- Do you feel that the work undertaken during your Fellowship has improved skills that are relevant and important for your work in your organisation? How are you planning to apply those skills in future work?

  Yes, the skills I have learnt and improved during this Fellowship are all relevant and important for my work with Madagasikara Voakajy.

  I have learned to design a research project, to apply for grants, and to write scientific papers which are among the key elements for the existence and maintenance of our organisation. During the taught programme, I wrote a proposal for the Rufford Small Grants (Annex 3). Following my interests on bats, bushmeat consumption and local traditions, I will design research programmes and apply for funding with my team.

  I have greatly improved my knowledge in statistics and GIS during this Fellowship, which are important tools for analyzing and presenting the results of our research. I will give one-to-one advice to the staff and students of Madagasikara Voakajy and, whenever possible, will run discussion sessions on particular data analysis examples.

  We always aim to present our results in national or international conferences, as well as publishing in scientific journals. Students also have to give a public oral presentation to obtain their degrees. I will participate in the design and improvement of these presentations with my new skills.

- What arrangements have been made for your future involvement, what more could be done, what discussions have taken place with your original employer to ensure that your new skills are utilised?

  On my return to Madagascar, I participated in the strategic planning meeting of Madagasikara Voakajy which was funded by Conservation International, the FFI-Rio Tinto Partnership and the Island Foundation. This was an opportunity to develop an organisational road map for the future and to, personally, set my own targets and goals to assist Madagasikara Voakajy undertake its growing portfolio of projects. I anticipate that I will receive greater responsibilities than I had before my MSc, and these will reflect my

newly acquired skills and knowledge. Whilst maintaining my interest in bats, I will be probably take on a management role that will oversee aspects of sustainable exploitation (i.e. hunting and trade) as well as becoming more involved in the supervision of Malagasy student projects.

To ensure that my new skills are utilised, I will be responsible for applying for my own funding to maintain an active research and conservation programme, that will include requests to international (e.g. the BES fellowship programme) and Madagascar-based donors. Essentially, I will be expected to develop new projects on sustainability and outreach in alignment with Madagasikara Voakajy strategic plan, the government's Madagascar Action Plan and the Convention on Biological Diversity, and to ensure it integrates with the other programmes within my organization.

- Has the Fellowship helped to improve your capacity to solve practical problems related to the sustainable use and/or conservation of biodiversity in your country?

  The Fellowship provided me with tools needed to analyse and solve the problems related to the sustainable use and conservation of biodiversity in Madagascar.

- Have you had the opportunity to make contacts with other UK biodiversity institutions, intergovernmental organisations, NGOs or the private sector during your fellowship? Will these contacts be useful for your future work, and how are you planning to maintain them?

  Different UK biodiversity institutions and intergovernmental organisations were involved in the running of the course. I have been in touch particularly with the World Land Trust, which is planning to set up a project in Madagascar. Through the Books for Conservation Programme I will apply for, they will potentially strengthen our student training and capacity building programme. I will maintain contact with them by providing suggestions for their project in Madagascar, and by sending regular reports if we are given books.

  I have also met Geoff Billington and Jacquie Warren from the Greena Ecological Consultancy. They have years of experience in studying bats in the UK and have offered to advice on any issue I will have for my future work. I will keep in touch with them through regular emails.

- Any other issue emerging from your experience as Darwin Fellow that you would like to raise, or suggestions for improvements to the Darwin Initiative Fellowship scheme.

  During the Fellowship, I learned to use new software such as ArcGIS 9.2 for the geographic information system, SPSS 15.0 for statistics, and Ramas EcoLab for population dynamics. They will not be available back home as the licences are too expensive. I already discussed this issue with the course director and it has also been raised at a recent course committee meeting. If the Fellowship is to achieve its maximum impact, it is important to have the tools used during the course available for the implementation of the skills learnt.