

Darwin Initiative: Half Year Report

(due 31 October 2010)

Project Ref No	17-006
Project Title	Bushmeat hunting in Madagascar: linking science, policy and local livelihoods
Country(ies)	Madagascar
UK Organisation	Bangor University
Collaborator(s)	Madagasikara Voakajy (partner) ESSA-Foret , University of Antananarivo, Institute Pasteur, Ministry of Environment and Forests
Project Leader	Dr Julia Jones
Report date	31 st October 2010
Report No. (HYR 1/2/3/4)	HYR2
Project website	http://www.madagasikara-voakajy.org/index.php?option=com_content&view=article&id=16%3Aeducation-initiatives-for-bat-conservation&catid=39%3Aprojects&Itemid=61&lang=en-GB

1. Outline progress over the last 6 months (April – September) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up).

Project planning and discussing progress within the team and with stakeholders: In May 2010 project staff organised a meeting at the offices of the Ministry of Environment and Forests to update stakeholders on overall progress and to discuss the next steps. The meeting was chaired by the CBD Focal Point for Madagascar (Mrs. Laurette Rasoavahiny), and other key partners present included university professors (Dr. Zo Rabemananjara and Dr. Hanta Razafindraibe), CITES Management (Mrs. Lydie Raharimaniraka, Mrs. Sahondra Rabesihanka and Scientific Authorities, Madagascar National Parks (Mrs. Chantal Andrianarivo) and NGOs (WWF and Conservation International). We presented fieldwork results which show high levels of lemur hunting which resulted in extensive discussion. Richard Jenkins (BU post doc) has been in Madagascar for 4.5 months in the 1st half of Y2 allowing him to work very closely with Julie Razafimanahaka (MV coordinator) and the rest of the partner organisation's team. Aidan Keane (BU post doc) spent a month in Madagascar working with the MV team and focusing on data analysis and student training. The PI (J. Jones) spent 10 days in Madagascar in the MV office in September 2010 during which time we reviewed progress and made plans for the next twelve months.

An understanding of the factors that influence patterns of exploitation: We completed our assessment of the Random Response Technique as a method for assessing levels of illegal bushmeat hunting. We have tried this method in 6 communes in 3 regions of Madagascar and carried out 1500 interviews (randomly assigning informants to a direct questionnaire or RRT). We now understand the advantages and limitations of this method well and are writing this up for publication. These 1500 interviews have also given us some very valuable (and worrying) information on levels of illegal hunting. Aidan Keane has been using the bushmeat recall data (collected in Y1) to model the drivers of bushmeat consumption for one region (Aloatra-Mangoro). He will work with the team in Madagascar in November and December and we hope this work will be submitted for publication before Christmas. We presented the results of our research from one site in eastern Madagascar to the stakeholders (mayor, traditional leaders, government authorities and NGOs). Because our work has uncovered evidence of high levels of illegal hunting of large diurnal lemurs the workshop discussion focussed on this issue. Follow-up meetings were held in the local communities, in our absence, and a list of potential

strategies for reducing illegal hunting was presented to MV in October.

An assessment of the impact of hunting of game species that make important contributions to rural livelihoods. We completed another field mission to Anosibe An'ala to mark and recapture *Rousettus madagascariensis* bats. The final field mission will be January 2011 and we will then analyse the data and improve our understanding of the ecology and the likely impact of hunting. However we do not believe that we have sufficient ecological information to allow a full population model and sustainability assessment to be carried out. The reviewer of our Y1 report asked for more clarity on whether we would continue tenrec surveys. It was not finally decided when we wrote the report but after reviewing the data and discussing our priorities for the next year we have decided instead to focus on socio-economic assessments of the harvest. In Y1 we collected some very valuable information on trends in hunting of tenrecs which suggest serious depletion and we will extend this work to a further two sites this year using the same methodology.

Recommendations for revisions to national legislation prepared with the Malagasy government. This review is complete and was presented to partners during February 2010. We will submit a summary of this for publication in the next few weeks.

An assessment of the knowledge of rules concerning hunting of wild species among relevant groups. We have collected the data (250 interviews in total) and this is being analysed. As a result of this work we are in discussions with NGOs in Madagascar about developing a leaflet communicating wildlife laws.

Greater protection for traditional knowledge and practices. In the Mangabe forest in eastern Madagascar we began a study, part funded by DI, to assess peoples' perceptions of different lemur species including understanding the role local fady are playing.

Analysis of the risk of disease transfer from humans eating bats We continued the sampling of flying foxes in collaboration with the Institute Pasteur and a veterinary student joined the project for this work. Preliminary PCR analysis of *P. rufus* samples has thrown up some interesting results-the samples have been sent for full sequencing.

Malagasy masters students graduated. Two students (Vohirana Randriamamonjy and Mirana Rajaonera) submitted their drafts of their theses to their supervisors in September 2010 and expect to have their viva before the end of the year. Two new students have been selected to work with our project and have chosen their topics.

Matched funding. The project team was awarded a contract by a mining company to assess the levels of bushmeat consumption (£31,902) and a grant from the Disney Wildlife Conservation Fund (\$21,000) for a study on bats and bushmeat.

Public Dissemination: The host country partner had an impressive stand at the 3-day exhibition to celebrate the International Day of Biodiversity, with a poster about the DU bushmeat project and another on the hunting of indri lemurs. This was followed by a similar event on World Environment Day in the town of Moramanga. PI Julia Jones has appeared on Welsh national TV and radio talking about the project.

2. Give details of any notable problems or unexpected developments that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

There were no notable problems during this period. However our project has uncovered surprising levels of illegal bushmeat consumption (particularly of highly threatened species e.g. lemurs) in a number of our sites. We have communicated these findings at the Antananarivo and regional level, and national and regional policy makers are keen to act. There is also real interest among NGO and government partners in the methods that we are developing to obtain information on sensitive behaviour (such as the hunting pressure on protected species). We are

