

The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Martin Odino
Project title	Measuring the conservation threats to birds in Kenya resulting from pesticide poisoning
RSG reference	44.10.08
Reporting period	March 2009 to July 2010
Amount of grant	£ 5996
Your email address	martinchael@yahoo.com
Date of this report	31st August 2010

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
1. To assess the mortality of birds resulting from deliberate Furadan baiting at the study area during the study time.		√		It was observed that some intoxicated birds flew away and died elsewhere. We focused on the neighbourhood of poisoning sites/points. There is therefore the component of the intoxicated escapee birds that was not been factored in the obtained mortality rates.
2. Provide evidence to authenticate bird poisoning using Furadan at the study site.			√	There was heterogeneous selection of bird carcass samples for laboratory testing the results of which are reliably unbiased.
3. Educate locals on Furadan's toxicity and suggest alternatives to wild bird meat.			√	Most people are now aware of the implications of poisoning though there is need for complimentary study on humans as well to shed more light on health impacts of consuming poisoned bird meat. There is also an upcoming local group that are pro bird conservation under the leadership of two trained local scouts. These are Joseph Achieno and Festus Opiyo.
4. Inform relevant authorities and influence action on the situation of Furadan poisoning of birds			√	Results of this study were shared as the project progressed. The results were shared with Pesticide Control Products Board of Kenya, the Kenya Wildlife Service, and the National Museums of Kenya, Nature Kenya and Wildlifedirect. Reluctance in response was observed particularly by the 2 chief organizations that should have been on the forefront of addressing the issue. These are Kenya Wildlife Service and Pesticide Control Products Board. At the moment however there are on- going talks and a task force has been formed under the leadership of Pesticide Control Products Board and Kenya wildlife Service are also part of the team

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

Education of locals was confronted by high illiterate levels hence addressing the technical issues about poisoning was difficult. Nonetheless I had to improve my vocabulary of the local language to communicate across the issues. Because of the same problem, it was only possible to administer 255

questionnaires out of the targeted 500. These were mostly conducted as interviews which slowed down the process.

The fact that locals knew about Furadan's lethal toxicity also posed a problem in persuading them to stop the practice of poisoning and eating birds. This is particularly because there are no direct observable health implications in the population who have been consuming birds for decades. We however demonstrated the toxicity by showing videos that were documented in Kenya on lion and vulture poisoning incidences and vivid neurotoxic effects – limb paralysis, lachrymation, rapid breathing, tremors and death on these wildlife.

Malaria disease was particularly a nuisance disease which mostly affected my PA and the PI (myself) despite having been on preventive medication prior to all fieldworks. This resulted to postponement of some fieldworks. These were however made up for during the next field study which lasted twice as long.

3. Briefly describe the three most important outcomes of your project.

This study has collected baseline information on bird poisoning. This information is the first ever of its kind in Kenya. Generally, the project exposed a unique form of poisoning that was unknown to many. Through this study, it is now known that flocking, wetland bird species are at greatest risk from deliberate pesticide poisoning and indeed lessons can be drawn from the study on what to expect even in non-intended (inclusive of careless handling) poisoning scenario. The study's results illustrate that commercial cereal growing sites (particularly plantation rice fields) are at greatest vulnerability of mass deaths if pesticides are abused.

Furadan and other pesticide regulation is being looked into by higher national authorities. This has been possible alongside other biodiversity poisoning studies parallel to this birds' study. As an immediate outcome, Furadan's halted supply by FMC, the manufacturer occurred at the height of advocacy on our blogs at Wildlifedirect on bird and lion poisoning in Kenya. I believe this was a necessary emergency outcome that in a way contributed towards bird and other species protection from poisoning.

An establishment of a local interest team. While the two scouts that I worked with at the site are the strongly reliable person's team interested in birds and their conservation, there is growing interest in birds among their peers. This was particularly observed in November 2009 during the last survey when I witnessed that six more individuals accompanied Joseph and Festus to look at flocks of waders at the rice irrigation field.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

The local community had two of their members permanently involved in this project which was alien to them. Occasionally other persons other than the regular scouts were involved in the monitoring. Overall, all had equal opportunity to learn about birds. In the least the locals have a chance to experience and learn through other technology (binoculars left with the scouts, etc) and expertise. In small ways, the hired cook and laundry person also got some money to help with their domestic upkeep.

5. Are there any plans to continue this work?

Yes. There are gaps that fall in line with this study's topic that should be investigated on just in case the problem of pesticide regulation which greatly affects the bird poisoning issue is not quickly addressed. Our national pesticide regulation agency (Pesticide Control Product Board-PCPB) has held the matter particularly to address Furadan poisoning at ransom citing inadequate evidence as the reason. The more complete and accurate the data that can be gathered, the more likely that PCPB will act at the matter. Further, recent refinements of methods on sampling and quantifying pesticide poisoned birds infer more accurate figures through a correction value based on field edge rather than field area (Minneau 1993). This is because many birds were observed to die in periphery to where they were poisoned. In this study, the set up was totally altered and with Furadan's quick killing action, many birds died in the plot while those that were disoriented were maimed to prevent their escape. Still, those that died on the nearby periphery were collected by poachers and brought back to the poisoning plot. We therefore quantified mortality based on field area; yet this had no correction value which is not particularly precise because there were some intoxicated birds that flew away and died elsewhere. In a further study therefore, there is need to obtain this 'fly away' component for more precise mortalities (Corrected) which would add significance to the data already presented to the pesticide regulation authorities. While working on refining the precision of the bird at the site, the venture will also present the opportunity to monitor bird poisoning as a follow up of this already completed study.

6. How do you plan to share the results of your work with others?

I have compiled a report to be circulated to the Ministries of Wildlife, Tourism, Agriculture and Health. The report will also be circulated to bird conservation stakeholders; Ornithology Section of the National Museums of Kenya, Nature Kenya, Birdlife African Partnership Secretariat and Wildlifedirect. Further, the report will be uploaded on Wildlifedirect's (my core collaborator organization and leading in the anti-wildlife campaign internationally) server for international access. Meanwhile I am seeking for an international journal to publish the information. I will also give a presentation at the National Museums of Kenya, Zoology section which is the local hub of nationally and internationally accredited wildlife conservation researchers.

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

From February 2009 to November 2009. Initially the project had been intended to run from November 2008 till October 2009. The funds were therefore used for 10 cycles of fieldwork (Reconnaissance in February 2009, then inter-month fieldworks from February-March 2009, -skipping July-August which was doubled up for in Aug-Sep- to Oct-November 2009). The initially the intended length of the project was planned for 12 cycles of fieldwork. I had hoped to capture the mortality trends across the entire annual migration of bird's period. This was however still accomplished adequately.

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

NB: By the time I received the grant, the exchange rate had dropped from £1 =Ksh125 to £1 = Ksh110. I also altered accommodation arrangements and bought tents for camping which was

cheaper and would reduce the distance and therefore local cost of travel to the site from the guest house. I informed Jane of these changes in respective email communications.

Please see the final enumeration below.

Item	Budgeted Amount	Actual Amount	Difference	Comments
2 Bird Guide Books @ £25	50	57	+7	Exchange rate changed from £1 =Ksh125 to £1 = Ksh110
2 Binoculars @£ 160	320	365	+45	As above
1 digital camera @ £ 200	200	227	+27	As above
Stationery/questionnaire	55	45	-10	£40 was used as per original exchange rate but because of the lower exchange rate it equalled the budgeted for value.
Educational Poster	100	0	-100	This was not made because of observed high illiteracy levels therefore it was felt it would not have the intended educational impact. Instead we intensified informal education sessions.
Two 2 man tents @ 100 and camping fee @£10 for 10 days for 10 cycles	1344	1200	-144	As above hence this substituted for accommodation at a guest house which would exceed amount budgeted for.
Subsistence	1722	2000	+278	We gave a camp attendant £200 to buy food and cook for all four of us. This money was inclusive of his pay for generally managing the camp.
Travel	2205	2100	-105	Local travel was consistent for the 10 return journeys for 2 persons at £90 per trip to and fro Nairobi to Bunyala. Local travel varied between £110 and £130 per cycle.
Total	5996	5994	-2	

9. Looking ahead, what do you feel are the important next steps?

I feel there is need to support poachers who I am in good dialogue with and who would be interested in trying out vegetable farming at the site. They need an initial initiative boost. I believe this will cut out the cycle of bird poisoning while boost the areas' vegetable supply. In any case bird meat compliments a staple food made from ground food. Vegetables would complement it better.

There should also be support to the upcoming birding group and marketing of the area for bird watching. Avitourism is an upcoming important industry in Kenya and Bunyala has a number of birds endemic to the area which would be a paying tourist attraction.

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

Yes. The RSG logo was displayed on the blog advocating against poisoning-
<http://stopwildlifepoisoning.wildlifedirect.org/>

I also made national presentation on Bush Meat and the RSG logo was portrayed on the title slide. Further (not logo use), I acknowledged RSG in an article on Birdlife International's website. This can be seen on the following address:

http://www.birdlife.org/news/news/2009/11/africa_furadan.html

11. Any other comments?

Rufford Small Grant has enabled me to make my contribution towards nature conservation.