

## The Rufford Foundation

### Final Report

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Congratulations on the completion of your project that was supported by The Rufford 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. 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](mailto:jane@rufford.org).

**Josh Cole, Grants Director**

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Grant Recipient Details	
<b>Your name</b>	Laura Perry
<b>Project title</b>	Integrating human psychology and ecological approaches to reduce conflict between pastoralists and carnivores in East and Southern Africa
<b>RSG reference</b>	23798-1
<b>Reporting period</b>	Feb 2018 – Feb 2019
<b>Amount of grant</b>	£4,380
<b>Your email address</b>	Laura.perry@zoo.ox.ac.uk
<b>Date of this report</b>	05/04/19

**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
Conduct research on three sites in southern Kenya				Three sites were sampled: Shompole, Amboseli (with two major sub-sites), and Tsavo. This was a slight modification of the originally intended sites, but the new sites were just as suitable.
Collect data on livestock management behaviours across sites				Huge amounts of data have been collected across Kenya, totalling around 800 usable surveys.
Collect data on the psychology of livestock management across these sites				See above. A single survey tool was used for both objectives, and proved very effective at collecting the required data.
Form collaborations with local partners on each site				I formed numerous collaborators across sites, and am very happy with the relationships I have built. I am working towards a number of publications (2+) in collaboration with partners. Data is also being shared with a number of project partners, in preparation for more collaborative work.
Explore the role of psychology in shaping livestock management behaviours				I am very happy with my early results. A paper has been tentatively accepted by Conservation Biology on the role of psychology in shaping livestock management across the southern Kenya landscape. Other papers are forthcoming.
Begin to develop a tool to identify impediments to good practice livestock management				Work is beginning on this tool, which will be improved as more data comes in and I have more time for analysis. I am happy with early progress.
Work towards a meta-analysis of livestock management techniques and their effectiveness				Some progress has been made, but a number of key players have been very reluctant to work collaboratively, slowing down the process. I hope to work towards this analysis in the coming years, as I foster stronger relationships with other organisations.

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

The research vehicle was a key piece of equipment for all tasks associated with the research. As I am new to vehicle maintenance, I underestimated the amount of time and money maintaining a vehicle would require. This led to a delay in some of the research activities, and a loss of funds, but overall was not a huge problem.

Similarly, despite assurances made before the project, certain partners were much more difficult to contact and share data with than expected. The Maasai Mara, for example, was expected to be a site both for my data collection and part of the meta-analysis, but communication issues with local projects prevented this. Alternative partners and sites were widely available, however, and I do believe my study has sampled a more interesting range of sites because of this initial problem.

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

1. Psychology is an important predictor of individuals' livestock management behaviour. This was the central assumption of the project, and had it not been true this would have been a major issue. This finding is also key to making useful recommendations based on my work.
2. Normative and control beliefs are particularly important in relation to livestock management. This finding allows me to focus on these areas in the coming years, and also begins to provide useful information to practitioners.
3. Sites in southern Kenya have numerous similarities, but also some key differences. The underlying similarities are interesting insofar as they demonstrate that tools made based on the data I am currently gathering are likely to be widely useful, and can be transferred between sites. The differences, by contrast, demonstrate that simply sampling one site or region cannot give generalisable results, and that doing site-specific psychology research is important to tweak approaches.

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

Numerous members of local communities were employed and trained in the course of this work. I specifically chose research assistants who had little-to-no prior experience of science to keep a consistent standard across sites to improve local skills. Young people were also preferentially chosen, in order to give them transferrable skills. All my research assistants were excellent, and all have asked for (and been given) letters of recommendation; I believe the skills they have learnt in the course of this project will stand them in good stead to access further research/employment possibilities.

Although it has not yet been completed, once this work is finished, I will return to all the communities who have been surveyed to explain the implications of my results. I plan to conduct focus groups and work with local partner organisations to help

communities implement the changes recommended by this research, in order to minimise their livestock losses. In the longer term, this work should help reduce livestock losses widely across the region.

### **5. Are there any plans to continue this work?**

Very much so. The fieldwork in Kenya which Rufford sponsored is part of a much larger comparison across Kenya, Zimbabwe and Tanzania. This season proved that the concept of using psychology to study – and possibly improve – livestock management is a useful one.

In the coming season/s, I will build on the work of this past year, and implement more nuanced, experimental approaches to develop tools that improve management practices. For example, this year's work showed that normative beliefs have a strong impact on management standards; in the coming year I will use experiment-type scenarios to study exactly how norms influence behaviour, and develop a norm-based tool for NGOs/community leaders to use to encourage people to practice livestock management of a higher standard. A number of different offshoots of this type will be pursued, alongside more data collection of the standardised tool to facilitate broad comparison between regions. I and my partners/collaborators are very excited about the future possibilities of this work, and very much look forwards to developing these approaches in the coming years.

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

Results-sharing is very central to this project, and will be achieved through three separate routes:

1. Some of this work has already been written up, and is in the publication process. The rest of it will be written up in the coming months, and again be published in peer-reviewed journals. The work has already been communicated at a number of meetings and conferences, and will continue to be discussed in scientific fora.
2. Reports are being written for all local projects/sites, as well as numerous sponsors/collaborators including (but not limited to) the Kenya Wildlife Service, WWF, and National Geographic. The site-specific reports are very important, as they give collaborating projects information they had not previously known about their sites, from basic data such as standard livestock management practices to attitudes across numerous topics.
3. These results will also be fed back to communities via group meetings. This process can only start once a greater proportion of data collection has been achieved, but is very much part of the project plan, and will be an exciting opportunity to discuss outcomes with the communities who experience conflict.

**7. Timescale: Over what period was The Rufford Foundation grant used? How does this compare to the anticipated or actual length of the project?**

Initially, I was expected to spend only 6 months in Kenya. Due to inevitable delays, I in fact spent 8 months collecting data there. Because of slightly lower food and fuel expenditure than expected (and hard economies!), I was able to use the Rufford grant to cover most of this period (in conjunction with some other sponsorships and subsidised arrangements).

The actual project is a PhD, so will last 3 years in total – although with widespread interest from communities and various NGOs, it looks like this research could be useful beyond the lifespan of my PhD. At present, I am still focusing on the PhD timeline, but am mindful that practical implementation of my tools is best guided by myself. Such activities would also be implementation rather than strict research and may need to extend beyond my PhD completion, if interest remains high and I have access to funding.

**8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion. 1 KSH = 0.0075£GBP**

Item	Budgeted Amount	Rufford Budget	Actual Amount	Difference	Comments
Staff data collection Amboseli	400		350	-50	External funder.
Staff training Amboseli	200		200		External funder.
Accommodation Amboseli	500		450	-50	External funder.
Food Amboseli	450			-450	Completely subsidised by local partner.
Fuel Amboseli	715		500	-505	External funder, and lower costs than expected through use of motorbikes.
Staff data collection Tsavo	400		400		As expected. External funder.
Staff training Tsavo	200	200	200		As expected. RSG.
Accommodation Tsavo	450	450	400	-50	Subsidised by local collaborator project. RSG.
Food Tsavo	380	380	400	+20	Slightly more expensive than predicted. RSG.

Fuel Tsavo	625	625	650	-25	Slightly more fuel use than predicted, but largely accurate. RSG.
Staff data collection Shompole	400	400	450	+50	Difference paid for by external funder. RSG.
Staff training Shompole	200	200	200		As expected. Cost expected to be covered by RSG, but moved to external funder to compensate for overspend on other RSG expenses.
Accommodation Shompole	600	600	800	+200	More expensive than expected, as I spent longer on this, the first site. This was to translate and test the survey tool. RSG.
Food Shompole	400	400	400		See above. RSG.
Fuel Shompole	675	675	630	-50	Less fuel used than expected. RSG.
Research Permit Kenya	450	450	450		As expected. RSG.
Ancillary costs (e.g. admin time in Nairobi)			500	500	Sometime in Nairobi proved necessary for administrative reasons e.g. sorting out permits or collecting supplies.
Data collection devices			300	300	6x data collection devices were required, to allow for simultaneous data collection by research assistants.
<b>TOTAL</b>	<b>7045</b>	<b>4380</b>	<b>7280</b>	<b>+235</b>	

**Paid for by external funders: £2665**  
**Overspend on overall budget: £235**

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

I am about to move back up to Tanzania to continue data collection. I will be collecting data of a number of different kinds:

1. The same quantitative survey data, for comparison with sites in Zimbabwe and Kenya.

2. I will construct a sub-survey with experimental components focussing on normative beliefs. This will allow a more structured intervention to be explored, using community referents to improve behaviour.
3. A second sub-survey focusing on attitudes will also be implemented. This will focus on the distinction between cognitive and emotional attitudes, with a view to informing education programmes. This will also be strongly focused on implementation, and generating usable tools for use by communities and practitioners
4. Qualitative in-depth interviews will be conducted across various sites. These will allow a background to the quantitative work to be constructed, and generate a more nuanced picture.

All of this work will feed into the larger project, which is becoming ever more applied and useful. Already I have huge amounts on interest from practitioners, and I believe this approach could have widespread uses, both relating to pastoralist/predator conflict, and much more broadly. I am developing my profile as an applied conservation psychologist, with a view to continuing work in this vein into the future.

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

Yes, widely! I have presented at a number of conferences – both posters and presentations – and I have used the Rufford logo in all of these. I will continue to do so as I present work funded by Rufford at future events. I also have a work-related Instagram page and Twitter, and post regularly. I usually tag the @ruffordgrants handle on these posts. Some tweets have been shared by the University of Oxford Zoology departmental twitter, and Rufford has been mentioned there too. In terms of academic production, Rufford are, and will be, noted as a sponsor of this work in all publications. In response to requests from National Geographic and WWF, I will shortly be starting a YouTube channel to communicate my research and other related content. Once this is up and running, Rufford will also be credited there.

**11. Please provide a full list of all the members of your team and briefly what was their role in the project.**

My supervisory team expanded over the course of the project, to include a greater range of experience. At present, it includes:

**David Macdonald; Andrew Loveridge; Tim Hodgetts & Tom Moorhouse.**

I have employed a large number of research assistants across sites. Research assistants were employed and trained to actually collect the survey data, so were critical to the study.

### **Kenya Research Assistants**

Shompole: **Peter Kamango; Satia**

Amboseli: **Isaac Letunga; Moses Mwangi; Joshua Njonjo**

Olgulului: **Nicholas Kamau; Jackson**

Tsavo: **Patrick Otieno; Robert Mugai**

**Daniel Njeru** was a major partner and key assistant in translations and implementation of the survey.

### **Zimbabwe Research Assistants**

Mabale: **Concilia Dube; Emmanuel Ndlovu**

Tsholotsho: **Hilder Hove; Anold Moyo**

Victoria Falls: **Levison Mpofu; Mduduzi Tshuma**

**Lovemore Sibanda** and **Liomba Mathe** were critical team members in helping me implement my survey.

### **12. Any other comments?**

I believe this project has – so far – been a roaring success. Having collected data from sites across both Kenya and Zimbabwe, I am ahead of my initial timeline, which allows for more flexibility and a slightly more in-depth approach in the future. This work is also proving important: I have shown that psychology does affect people's livestock management standards – the fundamental premise of this work – and therefore demonstrated that this is a useful approach to understanding and ultimately improving livestock management standards. Moreover, with specific modules of psychology identified as key to these standards, the way ahead is clear: I will need to focus on these particular psychological attributes in order to develop meaningful ways to help improve livestock management and reduce conflict. Support from Rufford has been critical to initiating and supporting this project, and I would like to thank the society deeply for sponsoring me.