

## 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. 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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#### Grant Recipient Details

<b>Your name</b>	Dr Ryszard Oleksy
<b>Project title</b>	Navigation in juvenile Mauritius fruit bat ( <i>Pteropus niger</i> )
<b>RSG reference</b>	1115-C
<b>Reporting period</b>	April 2017-April 2018
<b>Amount of grant</b>	15000
<b>Your email address</b>	bzrzo@bristol.ac.uk
<b>Date of this report</b>	04/04/2018

**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
Pups learn foraging site from their mothers				18 tags has been deployed on mothers and pups. However only four were retrieved and had not collected enough data to allow analysis and draw any conclusions.
Pups first navigate by following constant routes and gradually develop a cognitive map allowing them to perform shortcuts				Comments 18 tags has been deployed on mothers and pups. However only four were retrieved and had not collected enough data to allow analysis and draw any conclusions.
Fruit bats possess episodic-like memory, returning to the same foraging sites year after year				Comments 18 tags has been deployed on mothers and pups. However only four were retrieved and had not collected enough data to allow analysis and draw any conclusions.

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

The main difficulty we faced during the project was to retrieve the GPS tags which were deployed on mothers and their pups. We have managed to find four trackers while another 14 was not found.

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

Unfortunately with very small sample size of the retrieved tags and not a full year tracking it was not possible to fully meet the objectives of this study.

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

Local assistant was hired on a full time basis and trained in the field. The study gave him opportunity to learn about bat handling, their behaviour and conservation needs.

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

Yes. Although the project didn't manage to provide clear insights into the bat navigation abilities, it is planned to repeat the study next breeding season (2018/19). Tel Aviv University is working to improve their GPS tracking devices and incorporate remote download system which will help to gather the data while the tagged bats are still flying rather than wait for the tag to drop.

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

The project has been presented at several meetings in Mauritius. Due to lack of solid data it was not possible to publish the study. However, Ecosystem restoration Alliance Indian Ocean along with Tel Aviv University will keep working on the project and is optimistic that a clear data about bat navigation will be gathered.

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

The grant was used over a period of one year as it was initially planned.

**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.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Living allowance for main researcher at £400 a month for 12 months	4800	4800		
Salary for an assistant at £300 a month for 12 months	3600	3600		
Vehicle at £350/month for 12 months	4200	4200		
Fuel at £180/month for 12 months	2160	2160		
receiver plus Yagi x2	240	240		

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

It is essential to improve the GPS devices to be able to download the data remotely. It will also be important to have the RF transmitters working for long period of time in order to be able to found the tag long after it has dropped down.

**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?**

The logo was used during the talks given at the University of Mauritius research week, meetings with authorities and ongoing Ecosystem restoration Alliance Indian Ocean's education program.

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

**Mr Ismael Sudally**- Full time field assistant for the project. Helped with bat capture and handling as well as bat tracking

**Mr Laurent Ayady**- Helped with bat capturing and tracking.

**Mr Raphael Reinegger**- MSc student who helped with bat capturing and tracking

**12. Any other comments?**

I am very grateful for the support Rufford provided for this important project. It is unfortunate that clear data could not be collected this time. It was a very ambitious project and definitely not an easy one. However, the project will be continued and will improve its methods based on the outcomes of this study. Once all the objectives of the project are met and conclusions drawn full report about the findings will be shared with Rufford. Because Rufford has supported a full year of this project at its early stage, we will acknowledge Rufford in any materials produced about this project in the future.



Pup with a dummy tag getting used to the weight and learn to fly