

## The Rufford Foundation

### Final Report

---

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**

---

Grant Recipient Details	
Your name	RASOAMANANA Elysée
Project title	Effect of seedling recruitment on population dynamic and the sustainability of two endangered species of baobabs
RSG reference	9b1688-1
Reporting period	September 2018-february 2019
Amount of grant	£4970
Your email address	elyseenoro@yahoo.fr
Date of this report	February 2020

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 stability of the population dynamics in equilibrium				This objective requires knowledge of the life stages of baobabs. The number of seeds and seedlings is known; but the age they reach maturity can only be known after the radiocarbon dating which must be carried out this year.
(2) Identify if baobabs studied are at absolute risk of extinction in the future				This objective is dependent on the preceding objective. Once the stability of the population is known, their level of risk should be identified.
(3) Identify the consequences of low seedling recruitment on vital rate of baobab from sensitivity analysis				Baobab seedlings were monitored for 1 year. The various threats to their survival have been identified. However, their long-term consequence on the population viability requires data analysis (method of sensitivity analysis).
(4) Identify if seedling herbivores have a significant effect on seedling recruitment and should be considered in the conservation measure				Attack of the baobab seedlings by herbivorous insects was confirmed by the monitoring. Their impact is fatal for many seedlings.
(5) to propose conservation solutions				Although we already have some ideas, it is important to obtain all information to formulate the conservation measures.

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

The main challenge to our project was:

- The delay of the rainy season that created delays in the start of the activities (the fieldwork could not begin until February 2019).
- The difficulty accessing the site during the rainy period due to flooding.

- The difficulty identifying seedling predators by direct observation.
- The logistical problem in relation to radiocarbon dating which must be carried out in Europe.

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

The most important outcomes were:

- (1) A better knowledge of threats to young baobab seedlings (insect herbivore, drought).
- (2) Contact and discussion with the NGO Madagasikara Voakajy (which works on the conservation of baobabs) to coordinate conservation efforts of baobabs in northern Madagascar.
- (3) Confirmation of a suitable habitat for the development of *A. suarezensis* and *A. perrieri*, an important element for future reintroduction of the species.

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

As the present project is based on observation and research work, we have not yet worked with local communities.

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

After completing this project, we plan to implement the conservation measures that will emerge from this project. This work should be carried out in consultation and with the collaboration of the local community/Madagascar National Park and Madagascar Voakajy.

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

I plan to present the results of this work at conferences / symposia when the opportunity arises. It is also expected to publish the results of the work in a scientific journal.

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

Project activities end in February 2020 after 12 months of monitoring. However, data processing and laboratory analyses will continue.

**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
GPS	150	30	-120	For economic reasons, we have chosen to rent a GPS
Computer	500	631	+131	differences due to actual market price
Salary for local paraecologist	2160	1512	-648	differences due to actual market price
Subsistence researcher	810	980	+170	differences due to actual market price
Subsistence driver	810	980	+170	differences due to actual market price
Fuel	540	512	-13	differences due to actual market price
<b>Total</b>	<b>4970</b>	<b>4645</b>	<b>-325</b>	<b>1 GBP= 4280 MGA</b>
Smartphones		228	+228	2 smartphones for paraecologists (for telephone exchanges and to take follow-up photos)
Various equipment		91	+91	Notebook, raincoat, ink printing, tracking sheets, seedling label

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

- Determining the seedling-eating/devasting insect.
- Undertaking laboratory analysis (radiocarbon dating) to complete the collected fieldwork data.
- Finishing the data analysis.
- Writing manuscripts to be submitted in a peer-reviewed journal.

**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?**

I used the Rufford Foundation logo for the presentation of my preliminary results in baobabs congress from December 15 to 17, 2019 in Morondava, Madagascar.

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

Elysée Rasoamanana: principal investigator

**Vanomana:** paraecologist who monitored *A. suarezensis* seedlings

**Dama Harifeno:** paraecologist who monitored *A. perrieri* seedlings

**Rota Ravaoherimanana:** PhD student at the University of Antananarivo who contributed to the data collection.