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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Iva Njunjić
Project title	Cave biodiversity conservation in Lower Kinabatangan (Sabah, Malaysian Borneo
RSG reference	19303-1
Reporting period	April 2016- April 2017.
Amount of grant	£4970
Your email address	Iva.enco@gmail.com
Date of this report	01.05.2017

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
Raising environmental awareness about cave fauna and limestone ecosystems through lectures and workshops				We gave lectures about the importance of cave fauna conservation and explained the negative impacts caused by the anthropogenic factors. After each lecture we organised a workshop where participants could observe cave animals under a microscope--the aim was to familiarise them with these small-bodied animals. Booklets and posters were distributed among local community in Sukau, Batu Putih and among high school children and students at UMS.
Obtaining red List status for the most endangered cave invertebrate species				This is still in progress because we are waiting for our paper on cave Leiodidae to be published. Afterwards, we will include the newly described beetle species in the Red List. We have assessed the Red List status of the cave snail *Georissa filiasaulae*.
Preventing further degradation of limestone habitats in Lower Kinabatangan				Our project is a first step towards this goal.
Provide a basis for implementing the best management strategies for karst conservation in the tropics				The data gathered during this project are implemented in the database of limestone habitats at University Malaysia Sabah where they are available to individuals and organisations working on the karst conservation.
Increasing the number of individuals and institutions involved in the protection and conservation of limestone habitats				Through our workshop at KOPEL we have generated interest in the biodiversity and conservation of local karst areas and we have made an agreement for a follow-up project at one specific site

				where KOPEL is active.
Bringing our results under the attention of conservation groups that are active in Lower Kinabatangan through social networks				We shared the results of our work to several groups on FB related to cave and karst conservation and biodiversity especially in SE Asia: Beetles of the caves; Sundaland Molluscan Discussions; Molluscs of Sundaland; Borneo Biodiversity Network.
Initiate further conservation actions for the protection of other equally important endangered species inhabiting limestone outcrops				We have gathered data that will be used for an update of the Red List assessment of around 20 endangered species of land snail living aboveground on limestone outcrops in Kinabatangan area.

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

No unforeseen difficulties arose during the project.

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

1. We explored and sampled invertebrates in 15 caves in Lower Kinabatangan and found a new species of beetle (paper in prep.). According to our knowledge this was the first sampling of invertebrates in caves in this area.
2. Through lectures and workshops we raised awareness about limestone habitats and cave fauna conservation among local population.
3. We shared our results with local organizations active in Lower Kinabatangan, on social networks, and incorporated our data in the database of University Malaysia Sabah where they are available to individuals and organisations working on the karst conservation. Organization KOPEL based in Batu Puteh showed interest in collaborating with us in the future on cave and karst conservation.

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

During lectures and workshops, but also during our field work, local people showed great interest in caves, cave fauna and conservation of limestone habitats. They were very friendly and willing to share information and guide us to the caves.

5. Are there any plans to continue this work?

As mentioned above, we are planning a follow-up project with KOPEL on cave fauna conservation. They are organising community-based sustainable eco-tourism

in the region and have invited us to apply our methods to biodiversity assessments of caves in Batu Supu (the region where they are active).

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

We shared the information about caves and cave fauna with local NGOs, our colleagues at University Malaysia Sabah and colleagues working on snails and leiodids, but also with interested public through social networks. Paper on cave Leiodidae is in preparation and we hope it will be published in autumn.

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 project got funds in April 2016. We have carried out the project within 12 months as expected, until April 2017.

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
Airplane tickets	1500	1500		
Car rental	530	660	-130	We had to rent a jeep for the field work and that was more expensive
Fuel	33	50	-17	
Accommodation in KK	284	388	-104	We had to stay a bit longer than planned in to examine the material and database the collection
Food in KK	113	150	-37	
Malarone	127	140	-13	I couldn't use malaraone because I was already taking some medicines, so I bought insect repellent clothes instead
Travel insurance	85	266	-181	International travel insurance for 2 persons for 1 year
Accommodation and food during the field work	1320	1005	+315	We found cheaper accommodation
River boats with a driver	328	0	+328	This is included in the price of the accommodation above. We could reach most caves from the road so we didn't use river boats

				very often.
Digital camcorder	370	542	-172	Better camera was necessary in order to get good photos and videos inside caves
GPS	100	75	+25	We found cheaper one
Printing brochures	80	109	-29	Because of non-standard format our brochures were more expensive
Printing posters	100	85	+15	We found a better deal
TOTAL	4970	4970	0	

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

There is no data about previous speleological or biospeleological research of the Lower Kinabatangan. Therefore, the data gathered during this project present the first step towards more comprehensive and focused research that should be continued in this area in the future and contribute to the conservation of these threatened karst habitats. Important next steps are:

- To continue cave explorations and explore sinkholes that we found during the field work.
- To make maps of the caves.
- To continue the work on cave invertebrates in Kinabatangan area.
- To keep working on the taxonomy and publishing the new taxa.
- To continue educational activities and promote our work among local NGOs.

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, we used RSG logo on the video that we made (https://www.youtube.com/watch?v=wpirg1W_nNA) which was shown during the educational activities, and also on our posters and booklets that were distributed among local community.

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

12. Any other comments?

We would like to express gratitude to the Rufford Foundation for supporting this research and to the local community for their hospitality and for sharing information about caves.

The Rufford Foundation
www.rufford.org