

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	Sang Ngoc Nguyen
Project title	Documenting the reptile fauna in Vietnam: a test of capture-analysis-release approach
RSG reference	17799-1
Reporting period	2015-2016
Amount of grant	£4858
Your email address	ngocsangitb@yahoo.com
Date of this report	25th February 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
A detailed description of the capture-analysis-release approach				We completed the detailed approach and used the method to identify successfully 93% of the recorded reptiles in the area.
List of recorded reptiles, current status of each species, and threatening factors on the fauna				Data on not only on reptiles but also amphibian was contributed to the local managers for conservational activities.
Published paper on academic journal				Not yet published. A manuscript describing the approach was just submitted to Zootaxa – a peer-reviewed international journal. (see attached files)
Trained local ranger				We aimed to train a minority ranger via three field trips but he worked with us in only one trip. Unfortunately, in one trip the natural reserve had urgent mission and could not arrange him to work with us; in another trip he had to join a military service. However, he is intelligent and can recognise all recorded reptiles in the area.
Photos and data				<p>We printed colour photos of all recorded reptiles and amphibians in the report sent to local managers.</p> <p>We also copy to them photos of all recorded species (36 reptiles and 30 amphibians) separated in 66 folder corresponding to the 66 taxa.</p>

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

I had to extend my time during the project because of my family reasons. My wife gave birth in 2015 and I had to spend much time for my little daughter. During 2016, my mother was detected cancer at last stage and she was dead in last November. During her disease, I must have spent much time for her and that is why my project is delay. However, I still conducted all three field trips. The academic paper resulted from the project therefore was late in preparation, but it was finished and submitted. Another unforeseen difficulty is the time of the trained minority ranger. We expected he works with us during three field trips but he joined only one. Before each trip, we informed the local manager about our working time in the field. However, the ranger had to do his urgent mission and join a military service. Although being trained in only one trip, the minority ranger can recognise all recorded reptiles in the area.

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

- Success of the method

We test successfully the "capture-analysis-release" approach that allows for fauna research on reptiles without killing animals. This approach does not need to kill animal for identify as traditional method does. Although no preserved specimen is available, original data for each taxon recorded from this method can be checked morphologically and genetically based on detailed photos and tissue.

The main weakness of traditional photography-based taxonomy is that there is no voucher specimen to check when confirmation or more morphological character is required. Meanwhile, current herpetofauna researches in Vietnam usually kill animals for identifying and preserved specimen checking. However, the trend of herpetofaunal research must reduce collecting animal for identification and preservation. The "capture-analysis-release" approach can solve the problem reasonably by applying two important keys, including "voucher" photos and tissue for DNA analyses. First, the approach generates detailed and clear photos of all required morphological characters for identification, including colour, pattern, scale counting, scalation character, and measurement. Second, tissue obtained from the approach can be used as "voucher" data to confirm, compare, and describe the animal as molecular level.

- Data sharing

We planned to work on reptiles only but data on amphibians was also obtained and provided to the local manager for their conservational activities.

We sent the nature reserve manager a printed report including list of 66 recorded reptiles and amphibians, current status of each species, and threaten factors on the herpetofauna with colour photos of all species and a USB with photos of all 66 recorded species. The local manager said they do need these data for their work. They want to know which species in their protected area, how they look like, where to find the animals, and status of each species.

- Academic paper

The manuscript is under review. If it is accepted, this will be an official acceptance for the method and the accuracy of the results evaluated by other experts. The published paper should be an important citation for people who want to apply or require the approach.

Following the trend in conservation (reduce or stop collecting reptiles for identification), the paper should be scientific basis for policy managers in Vietnam in the future to reduce number of legal animal collected for each species from three (officially at present) to zero or one, and strictly stop killing for preserved specimen from well-known and well identified taxa as well as small and vulnerable populations.

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

We just did an initial step to test the method. We plan in next states more conservational activities concerning to local community will be conducted.

5. Are there any plans to continue this work?

Yes, but after the paper published. We are waiting for the paper because this will be an official acceptance for the method and the accuracy of the results.

We plan to conduct some additional field trips, use the result to train local ranger and community in identifying the reptile in the area as well as its conservational value. We also plan to build a local taxonomic database showing all required characters for identification. If other research groups come to the area to research on the fauna, the firstly check the data and may not kill the known animals for identifying. This will be also a basis for the local manager to reduce or stop killing known animals in their protected area.

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

We already shared our results with the manager of the nature reserve through a printed report and digital photos of all 66 recorded species, and to other researchers and managers in the world via an academic paper resulted from this project.

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

In the approved proposal, I designed three field trips in September 2015, January and May 2016. However, I conducted the three field trips in December 2015, March-April 2016, and October 2016. Because of the delay, I had to extend the time to this February.

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. 1 pound = 33,952 VND

Item	Budgeted Amount	Actual Amount	Difference	Comments
Transportation Car & motorbike taxi 147.26 p/trip * 3 trips	441.78	441.78	0	
Accommodation 2.95 p/night * 45 nights	132.75	132.75	0	
Food 5.89 p/day * 45 days * 4 people	1060.2	1060.2	0	
Labour For local guide 8.84 p/night * 45 nights	397.8	397.8	0	
For researchers 14.73 p/day * 45 days * 2 people	1325.7	1325.7	0	
For observer 8 p/day * 45 days	360	397.8	-37.8	We had to pay for the observer the same price as for the guide, about 300.000 VND/d (14.73p)

Flashlights 44.18 p/light * 2 lights	88.36	88.36	0	
Battery D-cell 2.95 p/pair * 45 nights * 3 lights	398.25	398.25	0	
GPS 201.62 p * 1	201.62	201.62	0	
Stereo microscope 235.63 * 1	235.63	235.63	0	
Tissue tube 0.08 * 1000 tubes	80	80	0	
Others (bottle, box, alcohol, etc.) 29.45	29.45	29.45	0	
Report preparation 14.73 p/day * 7 days	103.11	65.31	+37.8	
TOTAL	4858	4858	0	

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

This is just initial work and it needs next steps for conservational activities and expending the result.

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

Yes. I used the logo of RSGF in the cover page of the report sent to the Nature Reserve managers. (I will send a photo of the report with the logo to RSGF.)

The RSGF has not received any my publicity yet. I hope to get the paper published to send to the RSGF.

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?

Thanks so much for your support.