

Final Evaluation Report

Your Details	
Full Name	Pham Van Thong
Project Title	Population estimation, threats and ecology of the Critically Endangered turtle (<i>Cuora bourreti</i>) and sympatric species in Bach Ma National Park, Vietnam
Application ID	29699-1
Grant Amount	£6000
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Date of this Report	12 September 2021

1. 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
Determine the <i>C. bourreti</i> and its sympatric species status, distribution, species composition and ecology in Bach Ma NP				The <i>C. bourreti</i> is not found in the wild by the field team. However, we found one <i>Platysternon megacephalum</i> (CR), <i>Manouria impressa</i> (EN), and a <i>Pelodiscus sinensis</i> (VU). Rangers also given two localities that they found two <i>C. bourreti</i> and three <i>Manouria impressa</i> in the wild while patrolling. Besides, confirmed list of nine tortoise and freshwater turtle (TFT) species (plus six more potential TFT species that historical occur or described by local people without specimen) occurrence in Bach Ma NP. Set of average temperature and humidity at two locations at 1373 m and 554 m asl Bach Ma NP has been provided. See detail on the technical report
Determine the threats to the <i>C. bourreti</i> and its sympatric species				The turtle is kept as pet (<i>C. bourreti</i> , <i>Sacalia quadriocellata</i> , <i>Cuora mouhotii</i>) and food (<i>Mauremys sinensis</i> , <i>Cyclemys pulchristriata</i>) consumption at local house. And all of them are sell to local traders in Phu Loc town then the turtle heading to big cities toward to China market. Further information in technical report
Conservation actions/recommendations				Suggestions the locations to release 35 <i>Platysternon megacephalum</i> and 50 <i>Cuora bourreti</i> back to the wild in Bach Ma NP from Turtle Conservation Center, Cuc Phuong NP. Discuss and planning to build a herpetology rescue centre in order to captive breeding, rescue turtle, reptile, amphibian from trade in

			<p>central of Vietnam mostly focus on TFT (see Elaphe article on Bach Ma herpetology rescue centre and technical report)</p> <p>And other recommendations on the list of hunters, traders the region should be documented and monitoring closely. (See more in technical report)</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

The turtle population at Bach Ma NP is decreasing significantly, that why it is very difficult to encounter them in the wild. The Bach ma NP terrain is very difficult to walk in the field. Sometimes we have to walk at the slope of 60-70 degrees. It is quite dangerous as sometime the rock from the front person's feet fall to the behind people. However, we have overcome the situation safe and sound. We also found that the turtle traders have been arrested recently due to keeping endangered animal at home. Thus, we have no chance to approach the traders in the region, even we came to their house but get refused. The Covid pandemic is also making the processing of the field in delaying. Luckily, during the break between Covid-19 wave we can make the field trip done properly

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

- Determine the *C. bourreti* and its sympatric species' ecology, distribution, and threats.
- Given tortoise and freshwater turtle species composition species of Bach Ma NP for the first time (see detailed report).
- Set of recommendations, conservation actions that apply to enhance the monitoring to protect the turtle within the Bach Ma NP.

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

The team has involvement of local people surround the park. As currently, most of the team members are working as ranger assistants at conservation community team (CCT) at Bach Ma NP. Thus, the time working with turtle team, they got knowledge and attention on the turtle. They are aware that the turtle is fully protected by national law and need to get more attention on confiscation, arrest the hunters, traders just equal to the douc langur in the park. The local people have earned some stipend from the work with the team. They have aware that protecting the wildlife in the park may bring some source of income sometime.

5. Are there any plans to continue this work?

I want to continue to do *C. bourreti* ecology by using radio telemetry in the future in Bach Ma NP and planning to build the herpetology rescue centre at Bach Ma NP to save turtle and other species in central Vietnam. Future search for the *C. bourreti* in its entire range to determine the southernmost distribution will be conducted in central Vietnam. Currently, the team still conduct the turtle research on different species in Vietnam such as radio tracking *Geoemyda spengleri* and *Cuora galbinifrons* in other protected areas.

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

I am drafting two papers on the work to share the finding from my work to others. The results of the project have been shared to Bach Ma NP in order to get attention from board managers and rangers on turtle protection. It is also the baseline information to update the status of turtle at national level. The suggestion from final report will support the park action plan go on right direction in protection the turtle and other wildlife at the park.

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

The time scale has been proposing from April 2020-April 2021. All the field work has been finished within the proposed date. However, due to Covid-19 effect, the equipment to measure temperature, humidity has been left in the wild until August 2021 due to Covid restrictions, the team could not go to the field to take the equipment back to downloading.

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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Air tickets for 3 people from Hanoi to Hue and taxi from Hue to Bach Ma NP and return Hanoi	200	634	+434	The different is cover by Turtle Sanctuary Conservation Center
Stipend for 3 local people during the interview	192	245	+53	Increased two days compare to proposed
Accommodation for interview survey for 8 days	144	167	+23	Increased two days compare to proposed
Food for interview survey (4	192	220	+28	Increased 2 more days of

people) for 8 days				the survey
Salary for 6 local people during the field survey	2304	2403	+99	Involve one more local people
Food for field survey (8 people)	1536	1340	-196	The field survey has shortened 3 days compared to proposed
salary for the Principal Investigator		2000	+2000	
GPS 64 CSX	150	332	+182	Same as propose
Calliper, spring scale, battery charger, battery (for head torch and GPS), hammock	350	230	-120	The cost was cheaper than proposed
Hygrometer	120	97	-23	The cost wascheaper than proposed
Infra thermometer	80	64	-16	this was cheaper than proposed
hobo logger	232	255	+23	this was higher than proposed
Supplies/consumables	250	100	-150	This cost was cheaper
Admin overhead	150	200	+50	This cost was higher
Communication	100	50	-50	This cost was cheaper
Total	6000	8337	+2337	The remaining cost was cover by Turtle Sanctuary Conservation Center as in kind as proposed

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

To protect the endangered turtle at Bach Ma NP, the patrolling should be consistent with hunting season. The rangers, conservation community team should be well trained in terms of law and the importance of turtles in the park. As turtles are heavily traded in large volume, all turtle rescue centres in Vietnam are overloaded. Thus, a rescue centre should be built in order to: (1) rescue, captive breed and rehabilitate the turtles back to the wild; and (2) to be as education centre for visitor in central Vietnam. Further awareness programmes in local village, and the involvement of authority surrounding the park is needed. Looking at the large vision, the getting the attention on turtle conservation at national scale with good preparation in labour resources, financial.

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

Yes, the RF logo have been used in the reports and in the future papers will be credit Rufford Foundation has financial support the project.

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

The team include:

Pham Van Thong field researcher and principal investigator respond for report, leading the interview survey, field survey and communication

Bui Thanh Tung, Lo Van Oanh & Le Thanh An field research assistants conduct interview survey and field survey

Vo Tuong Thu, Cao Thanh Lam, Mr. Nghia, Mr. Minh, Mr. Thuan, Mr. Phuong, Mr. Tien & Mr. Luan who are local people and park staff were conducted the field survey.

12. Any other comments?

I sincerely thank Rufford Foundation was kindly support my project. It is not only developing my turtle research career but also strengthen my leadership in conservation in the region. I really hope that Rufford Foundation will continue to support not only me but the other flora fauna research and conservation in the Asian region. Keep up the good work.