

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	Nguyen Tuan Anh				
Project title	Improving the conservation of the second most important population of the critically endangered Delacour's Langur (<i>Trachypithecus</i> <i>delacouri</i>) in Vietnam				
RSG reference	25637-1				
Reporting period	27 June 2018 to 30 September 2019				
Amount of grant	£4900				
Your email address	tuananh.kuz.186@gmail.com				
Date of this report	10 October 2019				



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
Determine current population and distribution of the Delacour's Langur in Kim Bang area				Field survey in Kim Bang was conducted. Due to water shortage and logistic difficulty of Kim Bang area, the whole survey area was stratified into smaller sites to shorten the distance, as hence the time, needs to travel from camps to survey trails and points. 13 langur groups with at least 73 individuals have been recorded and verified. Furthermore, there was information on several other langur groups, but it has not been verified, such as a group in Ao Dong site (six individuals with one totally black langur), Dong Son entry site (more than 10 individuals), Cong site, Quen Vai site (two individuals spotted in 2016), Thung Mua - Ganh Gioi site (more than 10 individuals).
Opportunistically collect non-invasive samples from langurs (hair, faeces) for genetic analysis in Kim Bang area				13 samples, including 11 faecal samples and two hair samples were collected from sleeping sites of the langurs in Kim Bang, and have been properly processed and stored for future analysis
Assess natural and anthropogenic threats to the Delacour's Langur population in Kim Bang area				The survey identified three biggest threats to the Delacour's Langur in Kim Bang, including: (1) Hunting, and (2) Habitat degradation because of the limestone mining, and (3) Forest encroachment for agricultural planting and grazing. This project confirmed and recorded the evidence of illegal hunting and snaring that directly impacted the Delacour's Langur in Kim Bang. Hunting by improvised rifle is, surprisingly, still one of the biggest threats for the langurs. At sleeping shelter in Thung Nhai site, Thanh Son, the survey team found



		several gun primers and two poles. Based on other signs, the team concluded the there was a hunting incident when hunter shot and then followed the injured langur to its shelter and used pole to finish it. Based on other weathering and decaying clues, I guessed that the hunting incident happened no sooner than 1 year ago. Based on interview information, one langur group in Thung Nhoai site was reported to have seven individuals in 2015 and have eight individuals in 2017. However, the amount of faecal matter left at the shelter when we visited the site indicated that the langur group only had 4-5 individuals left and had not re-used the shelter for a long time. Also, hair and bones of one Delacour's Langur individual was found in Lien Son, at the valley between Thung Sau and Thung Ong Hao sites. This particular individual had been killed by snaring line, and one of its forelimbs was still at the snare. The team collected the body and evidence and send it back to Kim Bang Forest Protection Section.
Use project's results to suggest appropriate conservation recommendations, and to produce and disseminate scientific materials so it may help future conservation actions for langurs in Kim Bang and surrounding areas		The grantee has attended two conferences, one about Vietnamese primates, and another was specifically about the Delacour's Langur, and present about preliminary results from the field works, as well as suggest conservation recommendations for future actions. Also, distribution data from this project has been incorporated into a larger dataset to write a paper and grantee is submitting it for a scientific journal.

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

The first difficulty that I encountered when implementing the project was the terrifying topography of project area. Rocks in here have either blade-like shape with sharp edge, or spear-like form with stab-by end pointed straight towards you, with very little in-between. And then some of them are the favourite places to live of the slippery mosses. Hence, moving around the project site was not easy, and any



mistake could cause serious injuries. I became a little more careful climbing up and down with those rocks after I got a serious falling injury.

The second difficulty was the limestone mining. Though I had known that there were lots of mining activities near the project site, I was not prepared for the scale of the activities there. For instance, in there, you can just walk a few kilometres and see half of a dozen active limestone mines that are digging deeper and deeper into the langur's habitat. Actually, from one of the observation points that we used during the field trip, we could see both the langur sleeping site and the mining ones, and from some camp sites, we could hear the mining explosions that they employed to break the rock formations.

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

About the outcomes of my project, first, I have interviewed, surveyed, and collected data on occurrence, population structure, and distribution of the Delacour's langur population in all Kim Bang area. Though Kim Bang was a relatively small site, the task was not easy, as the topography there was quite challenging. Several non-invasive genetic samples have also been collected and will be analyse in future.

Second, based on the field survey and interviews, this project confirmed and recorded the evidence of illegal hunting and snaring that directly impacted the Delacour's langur in Kim Bang. Also, other negative effects from limestone mines, which directly affects the sleeping and feeding sites of the langurs in many locations, and agricultural activities have also been observed and recorded.

Third, I presented the preliminary results from the field works, as well as suggest conservation recommendations for the Delacour's langur in two scientific conferences. Also, distribution data from this project has been incorporated into a larger dataset to write a paper and I am submitting it for a scientific journal.

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

In Kim Bang, as it is not a formally recognized protected area, it does not have professional and full-time forest rangers. Hence, for my field works, I hired local community members who are generally quite knowledgeable of the population status, distribution, and threats to the Delacour's langur, with the idea of helping them with some side incomes, as well as to learn from their extensive knowledge.

Also, I collaborated with an NGO which specialises on conservation and community development works, named Centre for Nature Conservation and Development, to conduct a short education program aiming to effectively raise awareness of local communities on the langurs' conservation, especially on hunting and snaring prevention.



5. Are there any plans to continue this work?

Yes. Before the project started, I had had the perception that hunting was not a serious threat to the langurs in Kim Bang, since economically speaking, Kim Bang was, and still is, not a poor area. The project results have proven that I was wrong. Hence, as now I have baseline data on the overall situation of the langurs in Kim Bang, I plan to start the monitoring works on the langur population to assess the impacts from human activities to their wellbeing. Also, I plan to have more education programmes that are specifically tailored for local community in Kim Bang to help them understand the importance of langur's conservation and hopefully minimise hunting and snaring activities.

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

We have and will continue to publish and disseminate the findings of this project so that the results can be available for interested audience. In particular:

1. I presented the preliminary results from the field works, as well as suggest conservation recommendations for the Delacour's langur in two scientific conferences.

2. Distribution data from this project has been incorporated into a larger dataset to write a paper and I have finished the draft and am submitting it for a scientific journal.

3. Project reports: I will submit our project report to Rufford and, if allowed by Rufford foundation, my website. The report on my website will provide detailed information about project methodologies and results and will contain recommendations for appropriate conservation measures to improve conservation practices for the critically endangered species. In the future, it may help others to set up similar projects with similar species or sites.

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

Except for the scientific paper, which was anticipated to be around August 2020 because of the peer-review issue and was already mentioned in the proposal, the period that the Rufford Foundation grant was actually used in my project was the same as the period I proposed in the grant application, which is from September 2018 to September 2019.



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
Medical emergency kit	100	250	+150	I got into a serious accident in the field (covered by my own money)
Electronics supplies (batteries)	80	92	+12	The headlamp used a little more battery than anticipated
Maps	40	16	-24	The printing cost was low, and I also loaded redundancy maps into my smartphone
Laser Rangefinder	150	379	+229	Due to field conditions, I changed from Nikon Aculon to Nikon Forestry Pro Laser Range Finder (covered by my university's funding)
Headlamp	45	48	+3	Headlamp cost was a bit higher because of the supplier.
GPS Garmin	265	383	+118	Due to field conditions, I changed from Garmin CX 84 to Garmin 64s (covered by my university's funding)
Field camp supplies	550	511	-39	Local guides brought some stuff from their homes, so I didn't need to buy new
Lodging	290	314	+24	Lodging cost was a bit higher than anticipated
Subsistence in the field	1340	1482	+142	The food cost in Kim Bang was higher than anticipated, and due to difficult topography, that made returning to the town for resupply a very lengthy trip.
Local guide wage	1340	1560	+220	The average wage in Kim Bang was higher than anticipated
Interview materials	80	31	-49	I used my smartphone and field notebook, so I didn't need to print out all interview material, just a few important pieces,
Local travel in Kim Bang (motorcycle rental, vehicle fuel)	375	306	-69	The fuel consumption of the vehicle was much less than anticipated
Travel cost Hanoi- Hanam	245	207	-38	The transportation cost using coach bus was cheaper than anticipated
Total	4900	5579	+679	



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

Before I did this project, I got the perception that in Kim Bang, hunting was not an immediate threat to the langurs anymore, because their income and economic situation have improved a lot for the last 20 years. However, the results from the field survey and interview really proved me wrong and it is really eye-opening to see that illegal hunting is still rampant there, with actual remains of the langurs on the ground. Hence, I feel like given the current circumstances in Kim Bang, two next steps are going to be: first, to start the monitoring works on the langur population to assess the impacts from human activities to their well-beings, and second, to have more education programs that are specifically tailored for local community in Kim Bang to help them understand the importance of langur's conservation and reduce hunting activities.

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, I used the Rufford logo in both of my presentation, as well as in printed interview materials. Also, I had Rufford in the Acknowledgement section of my just submitted paper

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

Nguyen Tuan Anh: I took on almost all activities in this project, from logistic and permit preparation, field survey, to genetic sample collection to field interview, and report writing, presentation, and paper writing.

Nguyen Minh Quoc: He helped me with the design of interview questionnaires and participated in field interview implementation. He also played an important role in analysing field interview results to suggest potential survey areas.

12. Any other comments?

Many conservation efforts for the Delacour's Langur have been implemented since 1990s in Van Long, the site with the largest population of the langurs, with the establishment of Van Long Nature Reserve as a result in 2003. However, little has been done to protect the species in Kim Bang, where the second largest langur population was found. Hence, this project, supported by Rufford Foundation, is an important step to promote the langur conservation in Kim Bang by understanding the population, distribution, ecology, and threats to the Delacour's langur there. Therefore, I would like to thank Rufford Foundation for supporting me for the whole project duration. I would also like to thank Ms. Jane Raymond for her help throughout the project, especially her fast email reply and her understanding for some issues I encountered.