

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	Dinal Samarasinghe
Project title	A Standardized Population Survey of the Sri Lankan Leopard in Wilpattu National Park
RSG reference	18909-1
Reporting period	1 year 6 months
Amount of grant	£5000
Your email address	dinal.salvator@gmail.com
Date of this report	28-08-2018

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
Estimate the population density of the Sri Lankan Leopard in Wilpattu National Park (WNP)				The project began in May 2018 and the park was sectored to two major plots. The initial plot was surveyed and completed; work in the second plot is still underway and will be completed on 15 th September 2018.
Estimating the Prey Density				Line transects were conducted throughout the survey period, and camera trap footage will also be utilised to estimate prey occurrence, frequency and density. Will be completed on 15 th September 2018.
Faunal diversity across the range of habitat in WNP				This is done with the use of camera trap footage captured during the study period. Will be completed on 15 th September 2018.
Develop a standardised long-term population monitoring protocol for the Sri Lankan Leopard in Sri Lanka				It is imperative that other protracted and unprotected landscapes are surveyed to develop this.

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

Funding has been our major constraint, however after several successful fundraising attempts we managed to begin the project. The cost of bringing down 100 camera traps together with their protective cases were a problem as additional costs of taxes and duties were not excluded regardless of making pleas to the relevant government institutions. However, we managed to secure the remaining funding for the project.

During 2017 there was a prolonged dry period, and the survey was postponed due to the assumption that leopard distributions will be affected by being skewed towards areas with sufficient water. During April 2018 surveys were planned to be carried out however, heavy rains from the inter monsoons set in. And the project was postponed to May 2018, however, the rains continued. Regardless of the weather, and also with a fully equipped team (4-wheel drive vehicle and accessories, we decided to begin the project. A total area of ca. 350 km² was covered during the

first phase with the use of a total of 40 cameras. Irrespective of the rains, we recorded a 100% detections from all detectors.

Unlike several other parks in Sri Lanka, the road network in Wilpattu National Park is not well developed. Thus, accessibility is restricted when conducting camera traps surveys, in order to cover a large area have make sure heterogeneity of habitat is maintained throughout the study, old inaccessible roads were cut through. River beds were also made use to access some of these points within thick forest cover without road networks. Existing animal trails were expanded to ease access to several detector stations of my study. One of the detector stations is only accessible via a motor boat.

While surveys were afoot eight of our cameras were subjected to theft, cameras were stolen by people entering the park for honey collecting and poaching. This led us to carryout awareness programmes to the communities in the area and government officials. The attempts have now increased the protection of our cameras until the completion of our project.

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

1. This is the country's first scientifically robust, study on the Sri Lankan Leopard in Sri Lanka, using spatially explicit capture-recapture methods to estimate densities across heterogeneous habitats within the park. The estimates derived from these surveys will set a baseline for the leopard population of the Wilpattu National park.
2. Have a large data set of wildlife ranging from bats, birds, mongoose, civet cats, and other wild cats (rusty spotted cat, jungle cat and fishing cat) to large elephants across wide range of habitats. This will be important to indicate the richness of the faunal diversity in the park.
3. The surveys conducted in Wilpattu will be used as a key baseline to develop a protocol to carryout long-term leopard density surveys in the island following standardised methods.

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

As funding was limited, awareness programmes were not carried out. However, several pocket meetings were carried out in four key villages about the study and the benefits to the community. In addition, a mobile public announcing unit (three-wheeler (tuk tuk) with a loudspeaker) was deployed in these villages to make them aware about the project and the benefit they would get once the results of the survey are published.

5. Are there any plans to continue this work?

While working in the park, it has come to my attention that poaching inside the Wilpattu National Park exists in a great scale. I hope to spend my time here after the surveys have been completed to study the social sciences aspects of poaching and honey collection inside Wilpattu National Park. It is important to understand the reasons why poachers exist rather than using punitive measures to curb the problem even though their actions posed negativity to my study.

In addition, work is now scheduled to be carried out in Yala National Park. Yala National Park is the second largest national park in Sri Lanka and has the second highest tourist visitation of all national parks in the country. The park is divided into five blocks, and block 1 (ca. 141 km²) is the most famous of them all, due to the high sightings of leopards. A total of ca. 750 jeeps enter the park every day during the peak seasons (July-August; December-February). Regardless of the high human activity, the sightings of leopards still occur at a high rate, and the animals are highly habituated to vehicles being inside the park. Block 5 is also becoming famous among tourists and visitation has increased during the past 3 years. Visitation is limited in other blocks as visibility is hindered due to the thick forest cover spread throughout them, however, leopard densities are not known and it is important to conduct surveys in these areas as well. One of the key objectives would be to develop a strong management plan for Yala National Park for conservation of the Sri Lankan Leopard and also to have long term sustainable eco-tourism in the park.

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

I plan on disseminating the findings of this study in to three key stakeholder categories (scientific community; government officials and agencies; general public) with use of relevant media. I hope to publish the key findings in indexed peer reviewed scientific journals, a detailed report will be developed with several recommendations to the development and management of the national park to the key government positions and departments (President, prime minister and the relevant ministers (ministry of wildlife conservation and the ministry of environment); department of wildlife conservation and department of forest conservation.

The general public will be made aware of the findings through newspaper articles, media conference and also posters be printed in the government intuitions around the Wilpattu national park where locals gather.

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 study was to be carried out in a period of 1 year, however, due to several constraints (financial and weather) the project period had to be extended, however surveys are now coming to an end on the 15th September 2018.

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
Cuddeback white flash cameras	3144	3144		All allocated funds were utilised to obtain the cameras as previously budgeted
AA DURACELL Batteries	850	850		Funds were utilised to buy two sets of batteries to run the initial plot (8 batteries per cam)
Garmin E-trex	156	156		A garmin e-trex 20 was bought for the project

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

One of the main objectives of designing this study is to develop a standardised protocol that could be used to monitor populations of leopard's overtime. As it is not financially feasible to carryout annual surveys, at least these surveys should be carried out every 2 – 3 years. Thus, it is my objective to conduct long-term studies in Wilpattu National Park and other areas in Sri Lanka together with the department of wildlife conservation. I hope to train DWC officials about the use of camera traps, and survey methodologies so in the future these projects can be state run. However, I still require more knowledge about the leopard densities, faunal diversity of other protected and unprotected areas and also the level of human activity inside these areas (poaching, honey collecting, fishing and treasure hunting etc.) to develop a sound standardised protocol to monitor the largest land carnivore in the island.

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?

The Rufford logo has only been used in presentations given to several corporate bodies in Sri Lanka, as means to attract more funding for the project. The logo will be used in the detailed final reports submitted to the government officials and government departments. Newspaper articles and media conferences will have the Rufford Foundation logo in all printed material. Posters that are to be handed over to government institutions in the village areas in Wilpattu National Park will also have the logo.

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

Dr. Tharaka Prasad- Department of Wildlife conservation – collaborator

Mr. Ruwan Panagoda- Assistant- official assigned by the Department of Wildlife Conservation

Pramodh Premasiri- Research Assistant

Chaminda Kumara- Research Assistant

Javana Fernando- (Kulu Safaris (pvt) LTD) - key provider of logistical support

Rukshan Jayewardene- Advisor

Jehan Kumara- Advisor

12. Any other comments?

I'm grateful to The Rufford Foundation for providing the funding to make this national endeavour a success. I'm also grateful for granting all the requests made to extend the project when the remaining funds couldn't be secured on time and other constraints set in. I have by now I managed to secure most of the matched funding to carryout surveys in Yala National Park. Even though further funding is required to secure more camera traps.







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