The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. 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. 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	Anya Ratnayaka
Project title	Ecology and Behaviour of Fishing Cats in Urban Habitats of Sri Lanka
RSG reference	13033-1: Ecology and Behaviour of Fishing Cats in Urban Habitats of Sri Lanka
Reporting period	2013-2014
Amount of grant	£6000
Your email address	anya.ratnayaka@gmail.com
Date of this report	28/03/14

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
Understand the ecology and behaviour of fishing cats in urban habitats to develop conservation plans for urban sanctuaries.	X			Unfortunately we were unable to get the relevant amount of data required to develop these plans during the 1-year study period. Please refer question 2 below for more information.
Determine how top carnivores adapt to their ecology and behaviour in human-dominated landscapes.		X		After analysing the GPS data retrieved from the collared cat, we assume that urban fishing cats are quite adapted to human-dominated landscapes. Our collared cat used storm drains, culverts and canals to move from one area to another. It also spent days in empty lots and small pockets of habitat (paddy fields, patches of wetland) and even large gardens in highly residential areas in the city.
Provide information for translocated predator management (fishing cats released after rehabilitation).		X		We were able to collar one problem fishing cat (a chicken thief) which was translocated and released at the study site. During the 3 months that the collar was on the cat, we found that the cat moved over a large area without establishing a territory. More data from resident/translocated cats is needed to compare movement patterns between the two groups.
Create better guidelines for the translocation and conservation of conflict animals.	X			Data from this cat indicates that the translocated cat was able to move freely through the urban landscape, though it did not establish a territory. Observational data shows that there are other fishing cats in this area. However, more data from additional collared animals is needed to assess if translocated animals will eventually establish a territory. We will continue to collect additional data from both residential and translocated animals to confirm these behaviours.
Create a green city for green urban	X			The data collected from the collared cat shows that fishing cats use green passages to move through this highly urban

development, which in turn will help maintain healthy habitat biodiversity.				landscape. With additional data from a larger group of collared cats, we will be able to make better recommendations to the SLRDC on this matter.
Develop the concept of an urban BioParks as a forum for conservation awareness and education, and for the conservation of biodiversity and ecological services.		X		We have had meetings with the Sri Lanka Land Reclamation and Development Corporation (SLRDC) and the World Bank at which we addressed the importance of these BioParks and green areas. They seemed interested in the concept, and the SLRDC has even asked us to assist in creating a BioPark at the Diyawanna Oya wetland within the next year.

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

a. After our collars arrived and just prior to releasing our problem fishing cat (a chicken thief ready for collaring and translocation) at our study site, the Attidiya Marsh, we learned that the marsh was under severe threat. The SLRDC under government instruction from the Urban Development Authority and the Ministry of Defence and Urban Development had started to clear the wetland sanctuary for flood control purposes. Due to the sudden influx of heavy machinery clearing and digging up the wetland, we decided that it was in the best interest of our study animals not to continue the research at this location. As a result we had to spend a few weeks looking for a suitable release site, and eventually settled on the Sri Jayawardenapura Sanctuary, which was a confirmed fishing cat habitat.

b. However, just 3 weeks after our translocated cat was released, we were asked to halt all trapping and collaring operations. The Director General (DG) of the Department of Wildlife Conservation (DWC) contacted us and informed us that the collared cat needed to be removed from the release site, stating that we had released a dangerous animal in the area. Due to Commonwealth Heads of Government Meeting 2013 (CHOGM) starting a few weeks after the cat was released, the DG claimed that we had released a leopard that would potentially be a security risk to CHOGM delegates. Despite us providing evidence of fishing cats already existing in the area, we had to stop all work for 2 months till tensions died down.

c. At the next DWC research committee meeting in December 2013, we submitted a request asking that our study site be changed from Attidiya to Sri Jayawardenapura. The research committee approved this, but the DG revoked their approval. This news was conveyed to us a month and a half after the research committee met, losing us precious time. As a result we have been forced to set traps in Attidiya, despite it being cleared for flood control.

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

a. After observing the cat we have collared thus far, we can safely assume that fishing cats move through human-dominated landscapes quite efficiently. Our cat used the culverts, storm drains, green passages and empty lots that dot Colombo to navigate from one pocket of habitat to another. The cat was even recorded crossing main roads and junctions in the middle of highly urbanised towns in the early hours of the morning. By collaring more cats we can get a better idea of how these animals survive in these landscapes and work on conserving what now appear to be tiny yet vital pockets of habitat within cities.
b. During the course of the study period we were able to have a few meeting the SLRDC, during which we addressed the importance of BioParks and green areas. We not only touched upon the necessity to protect an endangered species as well as other wildlife living within these wetlands, but also discussed how vital wetlands were to the area as a natural flood control mechanism. Officials at the SLRDC seemed interested in the information we provided and have even decided to create a BioPark. In turn, we have offered to train guides on the wildlife found in the wetlands and also teach them how to conduct eco tours through the wetland once the BioPark has been constructed.
c. We conducted a few lectures at local schools in Colombo to educate students on the four species of wildcat found in the country (Sri Lankan leopard, fishing cat, jungle cat and rusty-spotted cat). Many students had never heard of any of the cats except for the leopard and were extremely interested in learning more about them. During these lectures we spoke about the importance of each species, as well as the threats faced by. We also spoke about the fishing cat collaring project, and showed students maps, collars and photographs of fishing cats.

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

We have had a few lectures in schools in Colombo, talking about the importance of urban fishing cats and informing them of what is currently happening to their habitats. We also talked about the importance of these wetland habitats, not only to the wildlife residing within them, but also to the ecosystem in general.

5. Are there any plans to continue this work?

Yes, we do plan on continuing this work in the future. It's important to gather as much data as we can on these cats for not only the scientific community, but also for the conservation of this species in Sri Lanka.

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

Our results will be shared through online publications, newspaper and magazine articles, and once we have collected more data we will submit a paper to a number of peer-reviewed journals. We will also continue having lectures for the general public and the conservation community here in Sri Lanka.

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

The funding received from RSG was used throughout the study period, with the bulk of the funding spent on purchasing tracking equipment. Unfortunately, due to the high costs of the collars we were unable to buy three, and were only able to purchase two. The rest of the money was used throughout the year to pay for the development of traps and for the transport of researchers to and from the study site.

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.

Exchange Rate as of 19/11/2012 (when applying for funding): 1 GBP = 206 LKR
Exchange rate 28/03/2013: 1 GBP = 191.94 LKR
Total received from RSGF: 5,887.74 GBP
The following table (actual amount and difference) uses the exchange rate of 28/03/2013: 1 GBP = 191.94 LKR

Item	**Budgeted Amount RSGF (£) 1 GBP = 206 LKR**	**Actual Amount (£)**	**Difference (£)**	**Comments**
2 Lotek Wildcell SLG collars	3146	3,365.69	+ 219.69	1 GBP @ 192.05 LKR The final collar price was slightly higher than we budgeted for.
2 Lotek TRD drop-offs	0	547.82	+ 547.82	1 GBP @ 192.05 LKR We were informed by the Lotek team that the drop-offs were charged separately from the collars.
1 Lotek Ground station	472	489.62	+ 17.62	1 GBP @ 192.05 LKR The final ground station price was slightly higher than we budgeted for.
1 Lotek GPS handheld command unit	1809	0	0	After a final consultation with Lotek, we learned that we did not require a command unit for the equipment that we purchased.
1 Lotek DL4 cable	283	308.15	+ 25.15	1 GBP @ 192.05 LKR The final DL4 cable price was slightly higher than we budgeted for.
1 Lotek Torque wrench	173	188.31	+ 15.31	1 GBP @ 192.05 LKR The final torque wrench price was slightly higher than we

				budgeted for.
Yagi, 25' cable and R-1000 receiver	0	599.19	+ 599.19	1 GBP @ 192.05 LKR With the remaining funds we were able to purchase this equipment.
Courier charges for Lotek equipment	88	158.36	+70.36	1 GBP @ 192.05 LKR Paid for the equipment courier charges with the remaining RSGF funds.
Courier charges for 3 SIM cards to Lotek Canada	0	26.13	+ 26.13	Used the remaining RSGF funding to cover these costs.
Bank commission charges on TT's sent to RSGF and Lotek	0	20.36	+ 20.36	Used the remaining RSGF funding to cover these costs.
Travel costs during the study period	0	32.87	+ 32.87	Used the remaining RSGF funding to cover these costs.
Printing & binding cost of 352 pages (PDF) Fishing Cat documents	0	9.97	+ 9.97	Used the remaining RSGF funding to cover these costs.
1 Trap cage	0	52.10	+ 52.10	Used the remaining RSGF funding to cover these costs.
TOTAL	**5971 (according to the budget submitted to RSGF)**	**5,798.81**	**1636.57**	We have 88.93 GBP (5,887.74 – 5,798 = 88.93) left from the RSGF funds. With this remaining money we plan on constructing two more trap cages.

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

a. Collaring more cats in and around Colombo's wetlands. We need to understand more about the species and how they behave in urban environments.
b. Collaring cats in wild habitats and comparing them with those found in urban settings to understand any differences in behaviour.
c. Most people we have come across have no idea what fishing cats are, and are surprised that such a large cat roams around Colombo. Therefore, we plan on conducting more education and awareness programs for the general public.
d. Working more closely with the SLRDC and the DWC to come up with conservation plans for the species and their habitat. We also hope to push the SLRDC to carry out their plan to create BioParks and keep green areas for conservation.

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

We did use the logo for presentations used in the wildcat awareness programmes that were conducted at a few schools in Colombo. During these programs we spoke about the four wild cats

found in the country, their ecology, their importance, and the threats they face, along with other conservation issues. We also spoke about the importance of urban fishing cats and about the research that we are undertaking.

The logo was also used on ranging maps created from the GPS data obtained from the collars.

RSGF received publicity in the newspaper articles (http://www.sundaytimes.lk/130929/plus/a-chance-to-survive-and-thrive-63769.html) that were published in September 2013, highlighting the project and its importance to the general public.

11. Any other comments?

We would just like to thank RSGF for their support in this project. Without your support we would not have been able to start this ground-breaking research project, which we believe would pave the way towards the conservation of this endangered species as well as their threatened habitats in Sri Lanka and throughout the rest of its worldwide range.