

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	Manush Abrahamyan
Project title	Caucasian Lynx conservation and research in Armenia
RSG reference	22518-1
Reporting period	29.07.2017-30.08.2018
Amount of grant	£5000
Your email address	abrahamyanmanush@gmail.com
Date of this report	11.09.2018

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
Trace tracking of Caucasian Lynx				For the camera traps site selection we surveyed the area for presence the traces (footprints, excrement etc.) The most common signs of Caucasian lynx presence are footprints, which have been found and recorded in snow or wetland.
Determination of the areas suitable for Caucasian Lynx study - mapping				The initial habitat suitability maps for Caucasian lynx have been created for southern Armenia.
Installation, checks and collection of camera traps in the field				Two session of installation of camera traps in southern parts of Armenia was made during winter-summer period of 2018.
Database filling				The published and unpublished data on the geographical distribution and abundance of Caucasian lynx in Armenia was filled in one database.
Field data analysis				The some of the gaps for Caucasian lynx distribution filled out in case of southern Armenia. The preliminary estimation of density was made only for Khosrov Forest State Reserve.
Seminars for villagers on topic of conservation of large mammals				The main information about biodiversity of region and ecology of Caucasian lynx, as well the problems of its conservation were highlighted.
Interviews with local people, public opinion surveys				Information about human-lynx conflict, observations by local people were collected.
Publication of article				The draft of article is prepared.
Preparation of Caucasian Lynx Action Plan				The species conservation plan requires additional information on ecology, presence and abundance and currently is on stage of development.

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

We installed 14 newly purchased camera traps for Caucasian lynx from which five failed in 2 weeks. Another camera was destroyed by brown bear. Therefore, we received less data than expected. However, the information of remaining cameras were combined with the data received from cameras of WWF-Armenia and it was enough to estimate the first hand results.

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

- **The lynx research programme startup in Armenia.** For the first time during pilot project we focused on study of ecology and distribution of Caucasian subspecies of lynx (*Lynx lynx dinniki*) in Armenia, which is under strong anthropogenic impact. Accurate knowledge of the actual distribution of the lynx will serve to identify critical areas with alarming changes, and what management actions in order to improve its protection. The baseline for the species was established, some gaps of their distribution were filled and the density of lynx in Khosrov Forest Reserve was estimated.
- **Data analysis for distribution for Lynx in southern parts of Armenia.** Based on collected published and unpublished data on the geographical distribution and abundance of Caucasian lynx as well captured camera trap photographs, the analysis of habitat suitability for lynx were done for southern Armenia. Habitat modelling of lynx in Armenia will be used for future conservation actions.
- **Education and public awareness raising.** Our activities (seminars in the schools, interviews and public opinion surveys with locals) aimed to inform villagers about biodiversity of region, mobilise greater public support for conservation action of large mammals, to foster new ideas to mitigate human-wildlife conflict and change attitudes toward the lynx in area of its distribution. The students from Yerevan State University and Humboldt University were educated about line transects and camera trapping methods during fieldwork.

The main results are presented in detailed report.

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

The seminars and public opinion surveys reached various target groups: schoolchildren and students (from primary, secondary and higher education), teachers of schools, villagers, and rangers from Khosrov Forest State Reserve.

5. Are there any plans to continue this work?

This pilot project gave the start for long term research of Caucasian lynx in Armenia. We are planning to continue the field surveys and researches of the lynx presence and abundance using capacities (new camera traps, trained volunteers, field experience, etc.) installed during current project implementation. The cooperation with Humboldt University and WWF-Armenia will support the next analyses of lynx habitat suitability for the whole territory of Caucasus.

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

The publication of results produced during this project is still in process of preparation. We will acknowledge RF in it. We plan one more publications and my degree thesis that will also make such acknowledgment.

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

We followed the timescale presented in project and finished the last planned field work in August. Therefore, the detailed report was prepared in mid-September.

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
Trail camera (10 items)	2200	1985	+215	The price of one item of camera was 126£. We purchased 15 items. The final price included the shipping cost
Batteries for camera trail (300)	600	600	0	We purchased the SD cards and batteries
Field work (transportation)	600	700	-100	The additional 6 one-day field trips were done
Field work (food)	800	800	0	
Field work (accommodation)	400	515	-115	The number of volunteers in group was bigger than planned
Seminars for school children and interviewing (transportation and food for 10 days)	350	350	0	
Printing the wall calendars (100 items)	50	50	0	We printed 100 items

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

The conservation status assessment of Caucasian lynx and its on-ground conservation requires the availability of presence and abundance data across Armenia. Unfortunately, we have few information about status of lynx in northern part of the country. Therefore, the project will run during the next years with aim to promote and coordinate the generation of new data on distribution and abundance of Caucasian lynx in northern part of country and to fill the existing gaps in southern part. This research is identified as next important step in study of lynx in Armenia.

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?

We used the logo for the wall calendars which were disseminated among locals, as well as during presentations in the schools. We are planning to publish the scientific article concerning the conservation status of lynx in southern region of Armenia, where the Rufford Foundation will be mentioned in the acknowledgment section.

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

Manush Abrahamyan – Project Leader, Yerevan State University (YSU)

Ofelia Yelabekyan – Field researcher, Master student of YSU

Manan Asikyan - Field researcher, Master student of YSU

Astghik Markosyan – Field researcher, Bachelor student of YSU

Marine Arakelyan – Advisor, Head of Zoology Department of YSU

Alexander Malkhasyan – Field researcher, WWF

Lena Hertrich – Exchange student from Humboldt University to YSU

12. Any other comments?

We are extremely grateful to The Rufford Foundation for the support of this project. This international conservation interest as well the Fund's support are crucial for the successful running of the new studies for neglected in Armenia species of large mammals. We are very much interested in continuation of this work, because the Caucasian lynx is key element of megafauna in Armenia, which should be under proper protection.