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	Anna Barashkova
Project title	Pallas's Cat in Kazakhstan: from investigation to conservation – Phase 2
RSG reference	21857-D
Reporting period	April 2017 – December 2018
Amount of grant	£ 9966
Your email address	yazula@yandex.ru
Date of this report	10/01/2019

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieve	Partially achieve	Fully achieve	Comments
- to obtain camera trap data on Pallas' cat distribution in Eastern and Central Kazakhstan				We have checked 26 camera traps which were set in Northern Balkhash Lake area and Kalba Altai in June 2016. 21 cameras were moved to the western part of central Kazakhstan upland in September 2017 and checked in June 2018. Additionally, 10 camera traps were installed on the northern Ustyurt plateau in western Kazakhstan in June 2017 and replaced in May-June 2018 (with 7 checked in October 2018 by the members of partner NGO).
- to create the permanent camera trap net for the species monitoring and obtain camera trap data on Pallas' cat distribution in Altai Republic				20 camera traps were used for the monitoring (were checked last time in summer period 2018). We intend to modify the net accordingly to data obtained.
- to make snow-tracking census and compare its results with camera trap data in Altai Republic				Unfortunately we couldn't conduct correct snow tracking because of bad snow coverage in study area, therefore, we have placed more emphasis on the camera trapping adding five more camera traps.
- to obtain interview data from target local people groups on Kazakhstan				We revealed that the investigated area is almost unpopulated and in reality there were almost nobody who could be interviewed. Some data was obtained through the Kansonar Hunters Society (the questionnaires were sent to regional departments of the organisation).
- to predict climatically suitable area for the species in Kazakhstan				The MAXENT model was created using our database.
- to update the database and GIS on Pallas's cat locations,				New data was entered to our database in ArcView GIS 3.2 and ArcGIS 9.3 (ESRI, CA, USA) and added

habitats and densities in Kazakhstan				to online database "Small Wild Cats of Eurasia". http://wildcats.wildlifemonitoring.ru
- to organise training in use and maintenance of databases				Personal training was organised.
- to inform and educate locals including hunters				We couldn't involve planned number of local people to education but the information about the species and our work was given in some local mass media and published in the Kansonar Bulletin.

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

We expected to interview at least a few dozen local people - on the pastoral stations and through the mediation of the Kansonar Hunters Society. Specially designed questionnaires were distributed within the regional departments of the Kansonar which are situated in every province of the country (total 14 provinces). Unfortunately, we received positive answers only from one region (Almaty province) from five hunting enterprises (filled in by one representative of the organisation). The rest of the regions gave formal negative responses though we know exactly that at least in two more provinces the manul is known and of course must be known to some hunters. During the meeting with the head of the Kansonar we have discussed the problem of such scarce feedback. He commented on this as the lack of interest to spend time on completing questionnaire for free. In his opinion it would be possible to make this work much more effective if to make joint with the Kansonar project. The heads of regional departments could organise thorough surveys in their regions involving more hunters if they were being paid.

The interviewing of locals in the field was also failed as the areas investigated in this project were sparsely populated. We met only a few stock-breeding camps and a group of poachers who were also interviewed. In the area there is a number of stock-breeding sites, which are used only in the summer, but at the time of our visit they were empty. Residents of these sites were recorded by three cameras (which got manuls also).

Also initially, we planned to organise training in use of databases particularly the online database on small wild cats of Eurasia http://wildcats.wildlifemonitoring.ru on the base of the Kansonar site (special meeting in Kazakhstan) and the Sail gem National Park site (Altai Republic, Russia). During the planning of the training and the formation of the list of participants, we decided that it is advisable to prepare several local coordinators who are interested in entering data into the database (key members of the working group on manul). A survey of potential participants indicated that they were more willing to provide data to such a coordinator than to contribute it themselves. Therefore, we conducted personal distance training for five persons. We also constantly inform zoologists and other specialists about the

existence of such a database and ask them to enter their data and disseminate this information. In particular, now in this way we have two people in Kazakhstan, who are constantly entering data on wild cats (although so far only on the Asian wildcat and caracal). We also help them to use the database.

Unfortunately, we couldn't conduct snow tracking because of bad snow coverage in study area. Therefore, we have placed more emphasis on the camera trapping. Our experience in conducting winter tracking census in manul habitats has shown that this method can be used as an additional. It also can be used in certain areas where the snow cover is and varies little from year to year or the area is quickly accessible by specialists when suitable conditions form (for example, in some protected areas where there are trained specialists). In most cases, the snow cover is unstable or uneven (for example, because of presence of stones and rocks) and/or areas are difficult to access in winter. In such cases, it is difficult to predict the establishment of a suitable snow cover and to plan the time of work - in particular, it is difficult to shift the terms of work due to the employment of people involved in the census. Thus, despite the fact that this method is convenient to estimate the number of species in conditions of permanent snow cover, it is of little use for the entire area of Pallas' cat.

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

1) It was found that the northern Balkhash Lake area (southern part of the central Kazakhstan hills) is one of most important areas for Pallas' cat in Kazakhstan. Here the manul was registered on almost every second camera trap (for comparison the manuls were recorded by single cameras in similar habitats in other parts of eastern Kazakhstan but situated north). In addition to the rock vole (*Alticola strelzowi*) the Kazakh pika (*Ochotona opaca*) is widespread in the northern Balkhash Lake area, as well as the height of the snow cover is less than to the north.

2) The model of species distribution across the country was created for the first time. Locations for installation of camera traps were chosen using this model. Upon the completion of camera trapping and gathering other confirmed data this model was renewed and contributed to the species global distribution assessment.

3) The interest in the study of small and medium-sized wild cats, including the manul was increased in the country. Thus, the online database was further developed; in particular, regular users (contributors) from Kazakhstan appeared. Within the framework of the projects of the national NGO "Association for the Conservation of Biodiversity of Kazakhstan" (ACBK), the geography of the project was expanded to include the westernmost parts of the historical range of manul, located on the Ustyurt plateau, from where contemporary confirmed records are unknown. Negotiations with experts from the Institute of Zoology (Almaty) on cooperation in the research of the manul in the south-east of Kazakhstan held. We also found a very interested

young mammologist from Almaty and hope that he will work with us and possibly become a coordinator in the country.

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

N/A

5. Are there any plans to continue this work?

We intended to continue the work on creation of protected area in northern Balkhash Lake area. To date we have outlined approximate area which would be great to protect and held preliminary negotiations with the Agency of Natural Resources and Regulations of Wildlife Management of the East Kazakhstan province, ACBK and UNDP Office in Kazakhstan.

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

The results of the work will be published at our web resources: web site of Pallas's Cat Study and Conservation Program http://www.savemanul.org, in FB page of the Program https://www.facebook.com/PallasCatProgram/

Preliminary results of first part of project were published as popular paper in the same name magazine of Hunters' Society of Kazakhstan "Kansonar".

News of investigations were published in local mass media.
The scientific paper "On distribution of small and medium-sized felines in steppe zone of Eastern Kazakhstan" is preparing for the publication in Journal on Threatened Taxa (JoTT).

The results of this project were used in the creation of review of Pallas' Cat global status in the special issue of the bulletin of the IUCN SSC Cat Specialist Group "Cat News" (planned to be released in April 2019) and presented at the Pallas's cat Global Action Planning Meeting (12—16th November 2018, Nordens Ark, Sweden). The Pallas' Cat researchers from Iran, Kazakhstan, Russia, Kyrgyzstan, Uzbekistan, Mongolia, and China participated in the meeting the result of which will be the Global Conservation Strategy for the species.

The final report on project's results will be given to the regional departments of the Wildlife and Forestry Committee of the Kazakhstan Ministry of Agriculture, the Agencies of Natural Resources and Regulations of Wildlife Management of the East Kazakhstan province and Karaganda provinces, ACBK and other interested institutions and persons.

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

Our project lasted from April 2017 to December 2018 (20 months). We expected it would be about 18 months including data treatment and reporting. Actually the Rufford Foundation grant was mostly used during the fieldwork period in Kazakhstan and Altai Republic (May 2017 – August 2018; the camera traps were installed for a period up to 12 months). A large amount of time was required to process images from cameras.

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	Actual Amoun	Difference	Comments
Per diem costs in field, 6,3/day*4 persons*105 days	2646	2646		The expenditure remained the same, as we asked the Fund for part of the expenses for this item, the rest of the money was covered from other sources
Accommodation and per diem costs during workshops, 10/day*1 person*15 days	150		-150	We held personal remote trainings without organising special travels for this. These funds offset the cost of batteries and SD-cards for additional 5 camera traps (were purchased on additional funds raised later)
Rent of vehicle, 40/day*105 days	2400	2400		The expenditure remained the same, as we asked the Fund for part of the expenses for this item, the rest of the money was covered from other sources
Fuel, 0,61/litre*20 litres/100 km*20000 km	1950	1950		The expenditure remained the same, as we asked the Fund for part of the expenses for this item, the rest of the money was covered from other sources
Train/bus tickets	1450	1389	-61	The total cost of tickets was less than expected

Batteries for cameras, 1,5*8 AA lithium batteries*2 (for changing)*40 cameras	960	1101	+141	The cost of batteries was increased to 1,53 and a set of batteries for more 5 camera traps was purchased
SD-cards, 8*40	160	197	+37	5 more SD-cards were purchased (total 25)
Consumables (paper, pens, notebooks, etc.)	100	118	+18	It took a little more money for these costs than expected
Leaflets on manal printing	150	165	+15	It took a little more money for these costs than expected
TOTAL	**9966**	**9966**		

The local exchange rate has being changed during the project period (since 1 GBP= about 72 roubles=403 tenge (KZT) in May 2017 till about 85 roubles=425 tenge in August 2018 when last payments were made). Calculations were made based on the exchange rate of the dollar to the rouble or tenge on the date of sale, as the Grant was received in dollars (total $ 12016.93).

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

From the results of our work in Kazakhstan, which were supported mainly by the Rufford Foundation, our work and the work of other researchers in other countries, from the analysis of available materials that were used to create a new species assessment, we can conclude that the following steps are important for the manul:

- Continuous monitoring of the species in key areas (in particular, in small-scale areas of central and eastern Kazakhstan, in the Russian part of Altai and Dauria) through universal methods, primarily camera trapping, to track the dynamics of the population and study the long-term trend.
- Monitoring of existing and potential threats to the species (in particular, economic development in key areas, use of pesticides). In identified places of high risk for manul actively educating the public and attracting the attention of environmental authorities to the problem.
- Close the gaps on the map of species distribution (based on the map of potential habitats of Pallas' cat established in the present project). In Kazakhstan, it is important to conduct absence/presence studies in the northern periphery, study the abundance in key habitats and distribution of the species in the south-east of the country (in Almaty province).
- Development of a uniform method to estimate the number of Pallas' cat. So far, the estimates have been made locally by different methods, which are not yet clear how to compare on the scale of the entire area.

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 logo of the Foundation was used in memo-leaflets about the manul and how to protect it for local residents – herders, hunters, etc. (attached to this report).

In addition, in 2019 we plan to make a large colourful poster / calendar in the frames of our work in Kazakhstan, which was started with funding from the Rufford Foundation and will be continued with the support of the PICA.

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

Anna Barashkova – conservationist, mammologist, coordinator of manul program (Sibecocenter). Project leader, field researcher, data treatment, report and other final materials preparing.

Ilya Smelansky – ecologist, conservationist, specialist in steppe grassland landscapes and species (Sibecocenter). In project: coordinator of field work, camera trapper, snow tracking, data treatment, protected areas reasoning and creation.

Andrey Tomilenko – mammologist, off-road driver (Sibecocenter, Novosibirsk). Driver, camera trapper.

Talgat Kissebayev – zoologist, conservationist (NGO "Association for the Conservation of Biodiversity of Kazakhstan (ACBK)", Kazakhstan). Assistance in data gathering.

Alexey Kuzhlekov – zoologist, scientific researcher in the Sail gem National Park (Republic of Altai, Russia). Key researcher in the Altai study site (camera trapping).

Andrey Lissovsky – mammologist, specialist in small mammals, particularly pikas (Ochotona sp.) (Scientific researcher in the Zoological museum of Moscow State University). In project: manul habitat modelling in MAXENT.

Alexandra Krivopalova – MS student in zoology, specialized in small wild cats (Samara Pedagogical University, Samara, Russia). Assistance in camera trapping and other field work, data treatment.

Anastasia Yevreiskaya – undergraduate student of Novosibirsk State University (Novosibirsk, Russia), citizen of Kazakhstan (Aktau), Assistance in data treatment (sorting of camera trap images).

Ravilya Sadykova – volunteer of ACBK (lives in Astana). Assistance in camera trapping, interviewing of locals.

Elena Shneider – conservationist, ornithologist (Sibecocenter, Russia). Assistance in camera trapping.

Pavel Soldatov - off-road driver (Russia).

12. Any other comments?

Thanks to co-finance of the Pallas' Cat International Conservation Alliance (PICA) and additional funds for the field research provided by the local NGO (the Association for Conservation of Biodiversity of Kazakhstan, ACBK) we have added some new activities to the project schedule. Particularly we have investigated the most western (known historically) edge of the potential Pallas's cat's range which is situated in the Aktobe and Atyrau provinces of the Kazakhstan (Northern Ustyurt Plateau).

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