

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	Milovan Ilić
Project title	Developing/Creating Conservation Strategies for the Eurasian Otter in Northern Serbia
RSG reference	18065-1
Reporting period	15.09.2016.
Amount of grant	£5000
Your email address	Milovanilic86@gmail.com
Date of this report	01.02.2017.

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
To establish the current distribution and density of distribution of Eurasian otters in Backa using a standardized method				The distribution and the density of distribution of Eurasian otter in Backa were established. This activity required a lot of unplanned time and financial costs during the first season, which was experimental (autumn-winter 2015). Corrections in methodology enabled this project to be successfully finished only during the next season (autumn-winter 2016). Positive findings were established on approximately 90% of the territory of Backa, and within the UTM unit of dimensions 10x10 km, there are four positive squares of dimensions 5x5 km in 80% of the cases.
To create a centralised online database, which will contain information on species distribution and density distribution, description of habitats, as well as an option for additional data input, such as information on population size, roadkill records and morphometric features				This objective was partially achieved by creating a part of the database which contains information on the distribution, the density of distribution and habitats variables (https://marvelapp.com/d70ef9/screen/10394566). Parts of the database which contain information on the population size (snowtracking), the roadkill records and the nutrition of otters have not been tested yet. Android application for filling in the database will be available only after it is tested, which is expected any time soon (within a few weeks).
To describe species habitat				This objective was not achieved because the fieldwork data has yet to be tested.

<p>requirements and build habitat suitability model (HSM)</p>			<p>The fieldwork was finished in winter 2016.</p>
<p>To explore and the impact of Eurasian otters on ichthyofauna in fishponds in Bačka and propose guidelines for mitigation of human-wildlife conflict, as well as initiate dialogue with key stakeholders (government agencies, fishing and hunting associations, scientists and members of the public)</p>			<p>Dialogues with fishpond owners were carried out. They were presented a compensation scheme for the damage caused by nutrition of otters in the fishponds. The scheme presentation was not carried out according to the initial plan which was supposed to include all interested parties. However, only local managers and fishpond owners who were included in the otter distribution research were informed about the methodology of the compensation scheme and the preliminary results of otter nutrition analysis in the three pilot fishponds. A survey was carried out on that occasion which implies that the owners of bigger fishponds are willing to accept the promoted compensation scheme methodology. On the other hand, the owners of smaller (mostly sports) fishponds are sceptical towards the methodology, some of them are even intolerant of the otter as a species which is regarded as a vermin. The part which refers to the manual creation will be finished after the complete android application is finished (in a month or two) because one part of the manual will include instructions for filling in the application with graphic depiction of the android interface.</p>
<p>To increase public awareness of the ecological value of Eurasian otters through a series of lectures, publication of Species Fact Sheet</p>			<p>This objective was achieved through a great number of lectures in primary schools (both to Serbian and Hungarian students), lectures to students at university, lectures fishermen, managers of the Public enterprise "Vojvodina vode" (it controls waters in Vojvodina) and "Palic Ludas" (it controls natural resources of Palic) .</p>

and presentation of study results at national and international conferences and in relevant ecological journals				Picturebooks on life of Viki the otter were distributed and Prezi presentations were given on the video beams. The part which includes presenting the results of the research to the scientists and members of the public has not been achieved yet.
To train students and conservation volunteers to carry out species monitoring and assessment of otter damage at commercial fish ponds using a standard protocol				This part of the project was completely successful. Maja Arok and Igor Vuckevic were part of this objective. They were successfully trained and they continue to carry out this work. arok.maja@gmail.com vuckovic@live.co.uk

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

The main problem was the amount of days spent on the project which exceeded the planned number.

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

The distribution and the density of the distribution of otters in Backa was established. The public was educated. The team was made and a part of the application was made.

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

Primary schools were the best partner for the implementation of the educational part of the project.

5. Are there any plans to continue this work?

Yes.

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

The application (which is in the process of creation) will contribute immensely in sharing the results. Publications in scientific magazines will also share the results. Articles on the results of the research in the newspapers will also share the results.

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 project lasted longer than expected. Without any prior experience with this vast research area, my perception of the deadlines significantly overestimated my real ability to apply the most demanding methodology. Nevertheless, great part of the project was completed after the methodology was corrected.

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
Field trip fuel	731.40	1,200	+469	More field trip days than planned, increased fuel costs, pound value drop compared to the value at the beginning of the project.
Field trip fuel	84	123.20		More field trip days than planned, increased fuel costs, pound value drop compared to the value at the beginning of the project.
Poster	250	350		It was decided that it was better to make a picture book about Viki the otter and about her life and problems it encounters.
Leaflet	180			
Digital microscope	506	0	-506	The microscope was not necessary because the nutrition analysis was carried out with a binocular magnifying glass. The investment was not necessary so the amount can cover unforeseen costs.
Field trip 1 Food	636	720	+84	More field trip days than planned

Field trip 2 Food	300	300		
Accommodation	756	700	+56	35 days of payed overnight lodging. This number is smaller than foreseen, because I spend some nights at friends' and on protected estates "Palić – Ludaš", and "Slano Kopovo"
Brochure-manual	294	294		
Organisation of the meeting with the key stakeholders	72	72		
Video projector Epson EB – S18	255.60		-255.60	The video projector was not necessary because all the institutions where I gave lectures possessed one. The investment was not necessary so the amount can cover unforeseen costs.
Safety vests for water	48	48		
Neoprene suit with boots	166	166		
Internet domain	22	22		
Internet server	264	264		
Design and development of software	434	750	+316	The real price of the software is even bigger than the price I actually payed and significantly larger than the unforeseen price. I managed to persuade a software designer that it would be an important working experience for him to include in the CV, so the price was decreased.
Amortization of vehicle	0	429	+429	My car broke down a few times on the field trips because the terrains were not adequate for that kind of car (Volkswagen Golf 3, car age 1996, petrol fuelled, 1-4 motor) The repairs included: clutch pedal replacement, shock absorber breakdown, sheet metal damage, tyre replacements (2), ball bearing

				damages
Design of picture book	0	50	+50	Fee for the illustrator Biljana Antunović (antunovic.biljana@yahoo.com)
One employed for diet analysis	0	100	+100	Fee for the student Maja Arok (arok.maja@gmail.com)
3D designer for part of android application	0	150	+150	Fee for the 3D designer Marko Momčilo Milešević. (https://www.upwork.com/o/profiles/users/~01f496fc8d5e044932/)
Total	5000	5738.2 0	+738.2 0	

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

The next important step should be graphic solution for the part of the application which deals with otter nutrition analysis, and, especially, the development of the algorithm for the quantification of the damage through regressive conversion of the length and weight of the fish based on the dimensions of their bones. This will require proportionately more significant funds in the following period.

As far as the child education on the life and problems of otters is concerned, I think that a massive means of communication such as a short educational cartoon can be effective. It can educate the children how to detect signs of presence of otters and how to fill in a form which is adjusted for children with the information. Consequently, the children will understand the importance of this species, its conservation problems and they will contribute in information gathering. Such a cartoon could be electronically distributed to primary schools, which would in turn give the feedback of how many children watched the cartoon. In addition, the feedback would contain children's comments on the cartoon and the life of otters. The cartoon would be the animated version of the story of Viki the otter, and the survey would be the continuation of the methodology carried out in some primary schools during the education and promotional material distribution. (<https://nasefotografijeiv.wordpress.com/2016/12/09/%D0%BF%D1%80%D0%BE%D1%98%D0%B5%D0%BA%D0%B0%D1%82-%D1%80%D0%B0%D0%B7%D0%B2%D0%BE%D1%98%D1%81%D1%82%D0%B2%D0%B0%D1%80%D0%B0%D1%9A%D0%B5-%D0%BA%D0%BE%D0%BD%D0%B7%D0%B5%D1%80%D0%B2%D0%B0%D1%86%D0%B8/>)

As a result, this modified approach would save time and distribute the material more efficiently. Considerable funds should be set aside for this idea because 2D animation minutes in after effects are expensive. The fee should be set aside for both the animator and the narrator.

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

Rufford is recognised by the teachers in primary schools, Public enterprise "Vojvodina Vode", natural Park "Palic Ludas", special reservation "Slano Kopovo" as the only foundation to promote conservation of otters in Serbia because this species had not been neither researched nor popularised before this project. Public enterprise "Vojvodina Vode" and the team of the sector for the protected estates (manager mmiskovic@vodevojvodine.rs) used the promotional material. In addition, they also capitalized on the educational centre on the protected estate "Beljanska Bara" to educate about otters as a symbol of healthy river eco-systems which they are in charge of.

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

12. Any other comments?

In the next cycle I must carefully allocate money and leave enough for my fee.