

## The Rufford Foundation Final Report

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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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
Your name	Jelena Burazerović
Project title	Bat conservation and Natura 2000 in Serbia: Good practice guidelines for inventory and monitoring of bats in protected areas
RSG reference	18263-2
Reporting period	September 2015 – March 2017
Amount of grant	£4848
Your email address	jelena.burazerovic@bio.bg.ac.rs
Date of this report	10 June 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
Developed framework guidelines for survey and monitoring of bats				The framework guidelines for survey and monitoring of bats has been produced based on the international and European references and best practices related to bats, inventory and monitoring techniques and application of conservation measures.
Developed survey and inventory of bat species in the Ovcar-Kablar Gorge PA				The inventory of important roosts and habitats for bats of the Ovcar-Kablar PA has started in 2014 and significant amount of data relevant to important roosts and habitats has been gathered in 2015 and 2016 during the course of this project.
Established good communication with authorities in charge of nature protection and PA managers				Excellent communication with the Nature Protection Institute of the Republic of Serbia has been established regarding bat research and conservation. Institute experts show interest in improving techniques of their inventory and monitoring techniques. Communication channel has been established with PA managers throughout Serbia regarding capacities for I&M.
Raised awareness on bats and the need for their inventory and monitoring in PAs in Serbia				Leaflet regarding importance of the inventory and monitoring of bats in PA has been developed and available in printed and electronic versions. Webpage on project activities is posted on <a href="http://www.orca.rs">www.orca.rs</a>

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

There were no unforeseen difficulties in conduction of project activities. There was unplanned delay of the project finalisation due to 6-month absence of project coordinator from Serbia for reasons of professional development at the Swiss Federal Institute for Forest, Snow and Landscape Research in Switzerland – for the reasons of improving skills and competences in inventory and monitoring techniques for bats using ultrasound detection and sound analysis.

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

1. *Inventory and monitoring of bats in Ovcar-Kablar Gorge Protected Area* – a pilot study protected area systematically implementing inventory and monitoring of bat populations and habitats has been ongoing since 2014 and have been intensified during the period 2015 and 2016 when important roosts have been checked and monitored for bats, as well as ultrasound detection has been used for identification of important habitats for different bat species in this important protected area in central Serbia. The project team has been working together with PA managers on information and education of staff on how to conduct systematic inventory and monitoring of bats at the territory of the protected area and to work with people inhabiting the area of informing and raising awareness on importance of bat conservation. A team of students and volunteers have been participating in fieldwork (use of different advanced survey techniques, especially bat detector surveys and sound analysis software) and have been educated on techniques needed for research of biology and ecology of bats. Having in mind that bats are cryptic organisms, use large geographic areas and have potential to disperse over large areas, survey and monitoring of bat populations is challenging and using simultaneously multiple techniques provided the greatest insight into bat species distribution, abundance and activity, due to differences in sensitivity of different techniques to detected different species. Results of the 2-year studies (2015 and 2016) has been submitted to the PA manager in the form of official research reports with an inventory of species and important habitats for bats at the territory of Ovcar-Kablar gorge.
2. *Research on capacities of protected area managers on inventory and monitoring of bats* – as part of planned activities, project team conducted research of capacities of protected areas in Serbia for conducting systematic inventory and monitoring of bats in Serbia. The results of interviews and filled in questionnaires from PA managers, identifying their problems, challenges and needs when it comes to inventory and monitoring, have been gathered and analysed on behalf of our expert project team. This outcome remains as a valuable resource for further actions needed for strengthening capacities of PA managers for inventory and monitoring of biodiversity at their territories which we plan to conduct in the following years, in cooperation with authorities, civil society and general public. We identified needs and capacities of PA managers and established good communication with

authorities in charge of nature protection in Serbia. The questions have been developed by our expert team in consultation with the PA managers and experts from the National Nature Protection Institute.

3. *Guidelines for inventory and monitoring of bats in protected areas in Serbia* – due to the interest of PA managers and expert public for inventory and monitoring techniques for bats in protected areas, and after conducted consultations with them, the project team decided to produce an education leaflet with introducing relevant information on bat biology and roosting behaviour, legislation background and some of the most relevant aspects of inventory and monitoring techniques. This leaflet is of special importance, especially from the point of view that Serbia is an EU candidate and accession country and harmonization of legislation and practice in regards to nature protection and especially Natura 2000 is very much needed and ongoing process. Specifically important aspects of bat biology and legal aspects, as well as basic concepts of the I&M techniques using bat ultrasound detection have been presented at a one-day workshop organised together with expert team of the National Nature Protection Institute, having in mind the role of the Institute in the system of nature and biodiversity protection in Serbia, participation of experts in field research, growing needs for improvement of knowledge about bats and their important role in future Natura 2000 management in Serbia. More information about the event can be found at: <http://www.zzps.rs/novo/index.php?jezik=sr&strana=vest&n=379-1>

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

Project team has been working with the management of the Ovcar-Kablar Gorge in raising their capacities for inventory and monitoring of bats at the territory of their protected area. They have been participating in field work and survey techniques such as identification and count of winter and summer colonies, and use of ultrasound detectors.

Local community of this PA has been actively participating through visits of our project team and work with the project team and PA managers in identification of summer and winter roosts of bats in man-made objects (monasteries, tourist objects, mountain houses, old village houses, bridges, old tunnels) and natural habitats (caves, trees, etc). At these occasions they have been informed about project activities and importance of bat conservation.

In cooperation with organisation ORCA from Belgrade, in synergy with the project CSOnnect supported by the Regional Environment Center, further strategies for bat conservation at national level have been discussed with the consortium of 13 civil society organisations from entire Serbia, as well as with 48 CSOs from the region of the Western Balkans (Serbia, Montenegro, FYROM, Kosovo and Albania) through activities supported by the European Union and project "Sustainable agriculture for sustainable Balkans". Furthermore, later this year in this project a seminar for media

from these western Balkans countries will be organised, where further promotion of this project activities and results, and the need for wider bat conservation in the western Balkans, will be promoted. More information about these projects can be found at: <http://www.orca.rs/en/projects/>

## **5. Are there any plans to continue this work?**

Excellent cooperation and coordination has been established with the managers of the Ovcar-Kablar protected area and further joint activities on research, inventory and monitoring of bat populations and important habitats at the territory of this protected area is planned in the future.

Excellent communication has been also established in the past years with experts from the National Nature Protection Institute who are very supportive to activities of the project team. Our project team will continue to provide support to experts working in the Institute regarding bat conservation work and strengthen their capacities for inventory and monitoring of bats.

Many protected areas and their managers contacted and participating in our research on their capacities for inventory and monitoring of bats have become interested in establishing closer cooperation and engage in bat conservation work at their territories – future members of the Natura 2000 network of protected areas.

Project team plans to continue and expand activities related to conservation of bats in Serbia, through joint activities aimed at research-based policy development, implementation of existing legislation, and raising awareness of expert and general public on importance for systematic research and conservation of bats in Serbia – inside and outside protected areas.

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

The results of the project have been communicated with expert and general public using several communication channels:

- Being a teaching assistant at the Faculty of Biology, University of Belgrade, project coordinator uses results of this project as examples of good practice in teaching courses – providing students with practical and applied ecology and conservation research results. Bat research and conservation has been successfully integrated in three academic courses concerning urban ecology and gaining practical knowledge and experience for students of the final year of bachelor and master studies;
- Through continuous work and communication with organisation ORCA and their network of partners and stakeholders;
- Using educational and promotional activities and working with schools and school children through Children's club ORKiCA, organisation ORCA is promoting bat conservation and importance of the science-based conservation actions of bats in our country;

- Through activities of the "Sustainable agriculture for sustainable Balkans" project which aims to strengthen capacities of CSOs and develop policies for biodiversity conservation in the western Balkans, including Serbia. Significant part of the project is aimed at bat conservation and development agri-environment measures tailored for bat conservation – and will rely and refer to results of the two small grants Rufford supported projects (13770-1 and 18263-2);
- Continuous communication with PA managers in Serbia and National Nature Protection Institute experts regarding bat conservation in Serbia.

**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 Rufford Foundation grant was used starting from 10 September 2015 and the duration of the project was longer for 6 months than anticipated due to the professional specialization and physical absence from Serbia of project coordinator. During this period project coordinator worked as a visiting scientists at conservation biology group, biodiversity and conservation biology research unit of the Swiss Federal Institute for forest, snow and landscape – WSL in Switzerland, improving her skills and competences in ultrasound detection survey techniques and analysis.

**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
Equipment	2448	2438	-10	This budget line was conducted in accordance to the proposed budget plan.
Design and printing of guidelines on I&M of bats	800	0	-800	The guidelines did not demand any budget for design and print. On behalf of this budget line and after consultations with experts, greater number of high quality educational leaflets informative on bat biology, roosting behaviour and basic inventory and monitoring techniques was printed for distribution to experts, PA managers and other interested stakeholders in Serbia.
Design and printing of leaflet on I&M of bats	350	850	+500	Please see comment above.
Fuel costs	500	810	+310	This budget line was conducted in

				accordance to the proposed budget plan.
Accommodation costs	750	750	0	This budget line was conducted in accordance to the proposed budget plan.
<b>Total</b>	4848	4848	0	The actual amount of total budget is the same and in accordance to the proposed budget plan.

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

We will continue cooperating and providing expert support to the national and provincial nature protection institutes, as well as to the ministry of environment in charge for nature protection on developing research-based policies and implementation of efficient plans and programmes aimed for conservation of bats at national and local levels in Serbia, especially in the light of the mentioned EU integration processes of the country and entire Western Balkans region.

We will continue cooperation with interested protected areas in Serbia and provide expertise and knowledge transfer for development of inventory and monitoring schemes adapted to their local needs and in accordance to legal requirements and national and international best practices, which will eventually result in implementation of efficient conservation management practices.

We will continue cooperation with the Ovcar-Kablar Gorge protected area on inventory and monitoring of important roosts and habitats of bats and provide managers with expert support for efficient conservation of bats at their territory.

#### **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?**

The project received its web page as part of official Internet presentation of organisation ORCA at: <http://www.orca.rs/en/project-natura-2000-in-serbia/>

The Rufford Foundation logo was used for leaflet on inventory and monitoring of bats in protected areas in Serbia.

The project was advertised and discussed at the occasion of coordination meetings of regional and national consortiums, as well as trainings for 48 CSOs from the Western Balkans region as part of the projects "CSOnnect" supported by the Regional Environmental Center and "Sustainable agriculture for sustainable Balkans" supported by the European Union.

The project and its results will be promoted by the end of the year on a seminar for media conducted as part of the four year project "Sustainable agriculture for sustainable Balkans" supported by the European Union <http://www.orca.rs/en/sustainable-agriculture-for-sustainable-balkans/>



As the project coordinator is teaching assistant at six courses for final year and master students at the Faculty of Biology, University of Belgrade, the project and ways of how interested students and future conservationists can involve in bat conservation work was promoted through interactive lectures in classrooms, as well as through practical field work.

In numerous meetings and communication with biologists, PA managers and experts from the National Nature Protection Institute and Ministry of Environment, project activities, results and support by the Rufford Foundation have been promoted and ways of providing their further expertise and support to bat conservation efforts have been discussed.

#### **11. Any other comments?**

We thank the managers of the Ovcar-Kablar gorge for continuous cooperation and support to inventory and monitoring of bats at the territory of their protected area, all managers of protected areas who participated in the research of PAs capacities for inventory and monitoring of bats, as well as all students and volunteers who participated in the fieldwork. Finally, we would like to thank Rufford Foundation for the continuous support to bat conservation efforts in Serbia.