

## 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	
<b>Your name</b>	Igor Gajic
<b>Project title</b>	Spiders of the Vršac Mountain Part II – Further Research and Conservation of Spiders on Vršac Mountains, Serbia
<b>RSG reference</b>	19873-2
<b>Reporting period</b>	August 2016 – September 2017
<b>Amount of grant</b>	£5000
<b>Your email address</b>	igyargiope@yahoo.com
<b>Date of this report</b>	02.10.2017.

**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
Expanding the inventory list of species, including new methods of collecting, and choosing new unexplored habitats				We organised a comprehensive fieldwork in the protected area. We chose northern part of the mountains, which was unexplored and we included new habitats for our research and new methods.
Training and education of high school children and students in order to make a good team of arachnologists				This project objective was also fully achieved. After organising field trips for high school children and lectures in the laboratory, we made a small team of future biologists and arachnologists. Selected students were the best during training and they have a plan to enrol biology studies and to continue training to become arachnologists.
Promotion of spiders as interesting and useful group of animals				Promotion of spiders to general public was partially achieved because we could not get space in the media (TV and newspapers). The reasons for this were president elections in Serbia and their total domination of the media. Because of it, biodiversity was not in focus during promotion period of the project. But, we managed to promote the project via brochures, lectures and live show on the local youth radio. We talked about spider research, our project and importance of spiders. Also, local community was informed about the project and relevance of our research. We had a deal with local shepherds to take care of our traps and not to let cattle to destroy it.

<p>Writing a first popular book and guide about spiders for pre-school and primary school children</p>			<p>This part of the project is still in progress. Text and illustrations for the book will soon be over so the book will be prepared for print. After finishing the book, we have a plan to promote the book in local media and to give copies to pre-school children and primary school children in few selected schools.</p>
<p>Organising workshops for pre-school children in order to raise their awareness of the spiders importance for ecosystems</p>			<p>This objective is fully achieved. We organised workshops in the kindergarten for kids (age 4, 5 and 6 years). Firstly, we had a talk about their knowledge about spiders. We wanted to know how much they knew before our lectures and workshops in order to validate our success. Kids were very interested in spiders. We talked about spider morphology, spider habitats and hunting methods. They made spider models from paper, then we made a giant webs from wool where we put their coloured models. All the material was left in the kindergarten so the teachers can use it for education of other kids. Also, kids who took part in the workshops will share their knowledge with their other friends.</p>

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

One of the difficulties was surely getting attention from the media because of the president elections. During the book promotion we will try to get that attention and further promote our project and its importance.

One more difficulty we ran into was a problem with the chief of the forest management in Vršac. At first he didn't want to cooperate with us and give us access to some localities. But after we asked management of the protected area to write a second letter to the forest management, this problem was solved. This problem occurred because not so many people are doing spider research in Serbia and people at first react very uninterested and with the attitude that this kind of research is less significant. For this reason it is very important to inform local

community about the value of any biological research so this kind of situation could be avoided.

Also, we could not have foreseen snow in April and very cold weather. Because of it, field work and research was prolonged for one month.

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

The first and most important outcome of this project was to expand the initial list of spiders for this area and to do the research on new habitats. This is a crucial element for developing a conservation and/or management strategy in any protected area. Fieldwork was based on collecting material using pitfall traps, beating and sweep netting techniques, trunk electors and vacuum suction. As a result, we have expanded the inventory list of spider species from the previous Rufford project for this area. The Institute for Nature Conservation of Vojvodina Province is currently including our results in order to update the conservation and protection status of habitats that we have chosen for this project. Now we have a better insight in which species are living on the Vršac Mountains so we can continue to make proposals for a monitoring plan and conservation.

The second outcome was training and education of high school children and students in order to make a good team of arachnologists. After organising field trips for them, we had laboratory training in order to teach them spider determination. All lectures and training were very well accepted and successful. Now we have a small team of young researches and future biologists who will continue to learn everything about spiders. High school children continued collecting spiders on one locality in order to expand their high school spider collection so the other kids can learn about them and maybe get interested enough to become arachnologists one day. Their teachers are also very interested in future cooperation, educational fieldtrips and research camps.

The third outcome is presentation of the results. Results of spider research from this project will be presented and published in the previewed science Journal. Also, specimens of every species will be sent to Naturhistorisches Museum in Basel to be deposited as a reference collection.

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

We had a great cooperation with high school management and professors. They were fully involved during the whole project period. Through promoting the project and helping us to get attention from students, schools also got their own promotion of good education techniques because of the involvement in this kind of science projects.

Local shepherds who live nearby our research localities were also involved in the project and they helped us prevent their cattle to destroy the traps.

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

Yes, absolutely. We plan to continue to educate more children in order to raise awareness about spider role in the ecosystem and to raise their interest in nature conservation. Also, we plan to continue our research on spiders, to organise research camps for students from the faculty and high school children; to form teams in order to explore spiders more thoroughly. During these summer camps we will organise more lectures so we can make a strong big team of spider enthusiasts. Besides that, we plan to make photography exhibitions in schools and on local science fairs.

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

First of all, we will write a scientific paper in order to publish our data. Results will be included in the Serbian biodiversity database and in international databases such as 'Fauna Europea' and 'Araneae – Spiders of Europe'.

Brochures and posters were sent to the Chemical-medical school from Vršac and given to the management of the protected area, Scientific Research Society of Students of Biology and Ecology "Josif Pančić" from Novi Sad and Natural society GEA from Vršac.

The complete list of species will be sent to the management of the protected area (Public Company "Varoš" from Vršac), to the Ministry of Education, Science and Technological Development and to the Institute for Nature Conservation of Vojvodina Province, so they could fulfil legal obligations of monitoring some species and/or their habitats.

Part of the collection of species will be deposited at the Educons University Novi Sad and the other part in Naturhistorisches Museum Basel, Switzerland and Nature Museum in Belgrade so everyone who shows some interest in spiders could see what we have found.

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

RSG was used from August 2016 – September 2017 which is more than the anticipated length of the project. The project was prolonged because of the field research and book publishing.

**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
Wages for fieldwork 32 days x 10£ x 3 persons	960	960	/	/
Wages for laboratory work 32 days x 10£ x 2 persons	640	640	/	/
Fuel (1448km per month x 8 months; total 11584km)	720	810	-90	Because of the snow in April, we had to prolong fieldwork for 1 month so the expenses for fuel were increased.
Lunch (32 days x 10£ per day (for 3-5 persons))	320	320	/	/
Car amortisation costs	200	0	+20 0	Since this money was planned for possible car repair and we didn't have any problems of that kind, part of the money was used for fuel.
Material for traps (cups, wire, wood sticks, plastic roof, storage bottles), fieldwork equipment, tree eclector material	250	250	/	/
Expendable laboratory material (Alcohol, formaldehyde, tweezers, laboratory glassware and plastic ware)	100	130	-30	Since we had to prolong fieldwork for one month, we had to buy more alcohol and Formaldehyde.
Leaf vacuum and costs for adaptation	250	250	/	/
Printing posters and brochures (100 posters and 1000 brochures)	150	150	/	/
Popular book for children: preparation and printing costs (1000 copies)	650	730	-80	These additional expenses were used for a professional illustrator who made illustrations of spider habitats and their

				morphology for the book.
Camera (Canon EOS 700D) and lense (Canon EF 100mm f/2.8 Macro USM) for spider macro photography	760	760	/	/
<b>TOTAL</b>	5000	<b>5000</b>		

Note: Conversion rate for transferring EUR to GBP was 1.16 (since I got whole amount in EUR, but I was instructed to give final budget report in GBP)

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

First step is to finish the book and to promote it.

Spiders in Serbia are still poorly explored. Every research gives more new data for our fauna. Faunistic research is important and needed so we could get complete impression of spider diversity in Serbia. If we don't know what we have, we certainly can't protect it. Education of students is very important so we could compose a bigger team of arachnologists who could help us. Future pure educational projects and research camps could help to make teams of young scientists and enthusiasts.

**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?**

Of course. We used the RF Logo on printed material – brochures and posters for schools and local scientific and nature-protection organisations. It will also be used on the cover of the popular book about spiders for children and during the book promotion.

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

Dr Ambros Hänggi  
 Curator of Bio-Sciences (www.nmb.bs.ch) Naturhistorisches Museum Basel, spider expert.

He gave advice for trap construction and choosing habitats. He checked all species found and made a reference collection to be sent for deposition in the museum in Basel.

Marko Malinović  
 Master student on the Department of Biology and Ecology, Faculty of Science and Mathematics, University of Novi Sad, Serbia.

He participated in every field trip and workshop. He made photo documentation during fieldwork, lecturing and workshops.

Milivoj Vučanović

He helped us on the fieldwork because he works as a ranger in the Landscape of outstanding features "Vršac Mountains". As a field expert he showed us great spots for placing our traps and also helped us to make a deal with the locals to prevent cattle from destroying our traps.

Students from the Faculty of Science, Novi Sad participated during fieldtrips and laboratory work. They completed the training and they will continue to work with us.

High school students from the Chemical-medical school, Vršac

Students also participated during fieldtrips, they learned to stir the material from the traps, change fixative and how to place a new trap. They also had training for spider determination and they will continue their research for future school projects. Two of them are planning to enrol biology studies and start working with us in the lab.

Bojan and Danijela Radeka

Professors at the Chemical-medical school from Vršac. They organised meetings with high school children, helped us in promoting the project and also in spreading the interest for the project in the school.

Grbić Gordana

Spider expert. She gave important advice about field research, helped with species determination and student education in the lab.

Ksenija Djordjević

Owner of the private preschool institution where we organized lectures and workshops with kids of different age groups.

## **12. Any other comments?**

I would like to express my sincere gratitude to Rufford Foundation for the opportunity to do this project, to continue our survey and share our knowledge and experience with the others. In our country science in general is neglected and spiders are a very unpopular group of animals. In order to change this, we need this kind of grants because it would not be possible to do many things without them. This kind of project is important for the Serbian fauna because there are lot of unexplored areas with great scientific potential which are already under threats. It was a great pleasure to work under your sponsorship.