

Final Project Evaluation Report

Your Details	
Full Name	Aca Đurđević
Project Title	Beauty above Water Surface – Why We Do Not Know Enough About Dragonflies in Serbia?
Application ID	25824-1
Grant Amount	£4,997
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1. 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
Forming Odonata taxonomic tree in Biologer.org online database				This was the first achieved objective which further allowed proper continuation of the entire project. Establishing the Odonata taxonomic tree in the online database it was possible to easily gather and analyse all the gathered data throughout entire project.
General project design, logo design, promotional material design; Project promotion so that more volunteers would take part in the project activities.				This objective was important for the promotion of the entire project and for attracting volunteers that will participate in the forthcoming field activities. Another important aim was to inform and educate the people about the importance of Odonata and their habitats in our country. Djordje Vukojević had the most important role in this part of the project: with his creativity he made a very recognisable project logo and designed project t-shirts. Promotions that were organized within biological society "Dr Sava Petrović" and the Faculty of Science and Mathematics in Niš had a great audience response. We were able to gather many volunteers and to start our field activities as planned.
Team meeting				Team meeting was organised as planned: at the Vrmdža lake, near Soko banja spa. At this meeting we agreed on future research activities and fieldwork schedule and officially started to gather the data for the project.
Field activities				With several issues along the way, primarily with bad weather conditions, field activities were organised with success! More than 3000 data points were gathered considering Odonata species distribution in southern and

			<p>south-eastern Serbia. We managed to gain interest of many researchers and nature lovers in our project during our promotional activities, therefore, significant amount of data was gathered from other parts of our country and uploaded to the Biologer.org online database as well.</p>
<p>Design and printing of brochures, promotion of collected data.</p>			<p>Thanks again to the creativity of Djordje Vukojević, a brochure was designed that contains information about this project, our activities and the importance of dragonflies of Serbia. The brochure is freely available as a downloadable *.pdf file at our projects' website' (http://dragonflies.bddsp.org.rs/wp-content/uploads/2019/07/aca-flajer-web.pdf).</p> <p>For the dissemination of the project results several oral presentations and promotions were organised at several Science and research camps around the country. In addition we have prepared oral presentations for several future scientific conferences.</p>
<p>writing and designing of the field guide on dragonflies of Serbia</p>			<p>Writing the field guide was a much bigger task than we expected in the beginning. We needed more time to sort out the results, scan the literature, gather photographs and illustrations and write appropriate texts. In addition, due to the prolongation of several field activities and promotional obligations, the writing and preparation of the field guide had to be postponed. In the meanwhile we established a firm collaboration with the Institute for Nature Protection of Serbia (of which I already informed your foundation), which lead to significant changes in the field guide content and appearance. Namely, the institute offered to officially publish the book which enabled us to make the field guide bilingual with texts in both Serbian and English. The amount of work required thus increased and we</p>

			are still in the process of writing.
The publication of the field guide of dragonflies and its promotion.			Since the Institute for Nature Protection of Serbia is now the official publisher of the field guide, whole procedure requires more paperwork and more time to prepare (as explained in the previous text), the field guide is yet to be printed and published. Nevertheless, the field guide will be finished and printed soon, and we hope to start shortly with the planned promotion and education of the people of Serbia!

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

First problems occurred at the very beginning: the procedure of evaluation and project acceptance by the foundation lasted longer than expected, wherefore all planned activities started a month later than expected. For the above reasons, fieldwork activities were prolonged throughout entire September and first half of October 2018. Luckily, in this period of the year the weather was favourable, without any rain, so we managed to gather enough of data.

Second problem arose during fieldwork activities: in the most important period of the season (July and August) there were many rainy days, which aggravated the field data gathering activities and postponed many planned fieldwork activities. We even had to cancel some of our planned field visits.

Third problem arose while preparing the Odonata field guide: the writing of the guide was more challenging and harder than it seemed and required more time. Colleagues and professors, that have already been writing educational material of similar structure, have helped me tremendously with their advice and helped to speed up the whole process.

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

Formation of the **taxonomic tree of dragonflies (Odonata) in Biologer.org** online database. This database, with its' useful tools, speeds up and eases the gathering of field data enormously. Before we started this project, the Biologer.org database already had a significant number of users and experts that study other organism groups, who sent us their photo material of dragonflies from the field and thus helped us in data gathering. Regardless of the termination of our project activities, the database still continues to gather data about the distribution of many species in Serbia. During the realization of this project, a total of **3272** data points were gathered about the distribution of Odonata in eastern and south-eastern Serbia. All data are publicly available through Biologer.org and represent **invaluable contribution the knowledge of the distribution of this group of insects**. These figures

give a clear picture of the systematic research we conducted in this area. **Creation of the first ever field guide about dragonflies of Serbia!** This publication will enable the beginners and nature lovers an easy introduction to the knowledge about this group of insects in Serbia. We hope that this field guide will enlarge the number of people that decide to study Odonata and contribute to the general knowledge of this group of insects.

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

Project promotions and presentations were held at several locations in the country. They were welcomed with considerable interest and curiosity. Many people who attended the promotions joined the field activities in that area for a couple of days or more. These people eagerly await the release of "Serbian Odonata field guide" so that they could learn more about the Odonata that live in their surroundings and send their future findings to the database themselves.

5. Are there any plans to continue this work?

By all means! Although a significant amount of data has been gathered through this project, the areas are still not fully investigated. Within this project we gained new knowledge about the distribution of several endangered and rare species, to which special attention should be paid in the future.

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

In September 2019 the entomology congress of Serbia will be held in Niš and for this occasion we already submitted three abstracts containing results from this project. Each abstract will be presented by one of the team members. Later we have in plan to publish two original papers in science journals.

In the next issue of the magazine "De Nature" of the biological society "Dr Sava Petrović" an entire page will be devoted to this project and our activities and findings.

In addition, "Super radio" invited our team members to speak about the project and several local newspapers are writing articles about our project findings.

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

In general, the entire timescale was postponed. As mentioned before, the beginning of the project was postponed for an entire month due to project evaluations. This caused the prolongation of the project field activities, since we wanted to gather as much data as planned in the beginning. Several localities were visited later than planned, and we had to drop out several field trips entirely. Promotions were organised on time, since they took place at the Student and research camps in the country. The writing of the Field guide proved to be more demanding than expected, which has shifted the time of realization of project goals.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Website design, website update and logo design	176	176		
T-shirt cost and printing cost (50 pcs)	218	218		
One team meeting (fuel and food cost)	129	129		
Field equipment for team members	436	436		
Existing photo equipment upgrade	491	491		
Fuel (approximately 13000km for three vehicles)	1098	1202	-104	The budget that we did not spend intended for the accommodation we used for the fuel in order to visit as many localities as possible.
Food cost for three teams during field activities	995	995		
Accommodation (where free accommodation is not available)	104	0	+104	There was no need of the accommodation (we either camped or were hosted)
Odonata field guide printing cost (for 200 pcs)	1046	1046		The money was redirected to paying the translator for the bilingual Field guide (with agreement of The Rufford Foundation)
Promotion of Odonata field guide (fuel and food cost)	130	0	+130	The money will be spent on the promotion as soon as the field guide is printed and published
Brochures printing cost (per 500 pcs)	174	174		
Total	4997	4867	+130	

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

Within our research area significant number of habitats was suitable for the species of *Cordulegaster* genus, especially *C. bidentata* and *C. heros*. Both species are on the IUCN Red List and are characterised as NT, with the tendency of their population decline, additionally the species *C. heros* is present within the Habitats Directive as well. At almost all the suitable habitats we encountered at least one of those species, or even both. In the future special attention should be delivered to the fragile species of this genus, their distribution and abundance in this area. It appears that their populations are healthy in this part of the country providing great conditions for the conservation of those species.

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

The Rufford Foundation logo was used in every occasion. It was firstly presented on the project website and everyone who enters <http://dragonflies.bddsp.org.rs/> is able to see it. The logo was present in all the project presentations and result promotions (in this case, more than 100 people, mostly students, were able to see it). Logo is printed on the project t-shirts (50 pieces) and brochures (500 pieces printed + online available at our website). The logo will be printed on the "Serbian Odonata field guide" and mentioned in all the future promotions.

The Rufford Foundation will be mentioned within every scientific publication containing project results, printed or presented.

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

Aca Đurđević (team leader)

Marko Nikolić (field activities, design of the "Serbian Odonata field guide")

Dimitrija savić-Zdravković (field activities, design of the "Serbian Odonata field guide")

Jelena Jakšić (field activities)

Stefan Nikolić (field activities)

Petar Radojković (field activities)

Vladimir Gligorijević (field activities)

Đorđe Vukojević (Visual identity of the project: Logo, T-shirt and brochure design)

Katarina Matkić (field activities)

Vladana Vidanović (field activities)

Aleksandra Trajković (field activities)

Milan Ilić (field activities)

Slobodan Marković (field activities)

Božidar Jakšić (field activities)

Emanuel Veverica (field activities)

Danilo Penić (field activities)

Aleksa Gajić (Book cover design) A very interesting collaborator that was fascinated by our project aims and goals and decided to take part in it. Mr. Gajić is a Serbian comic artist, film director and a world known illustrator. His participation will tremendously help in project popularization and the appearance of the "Serbian Odonata field guide". You can read more about him on https://en.wikipedia.org/wiki/Aleksa_Gaji%C4%87 .

More than 20 people took part in the field activities and participated in the camps and promotions (volunteers, students, professors and locals).

12. Any other comments?

Realisation of this project opened more questions than it gave answers. Even though a very significant number of data has been collected and a field guide on Odonata in the Serbian language will soon be available, only now should we work on familiarisation with this group on the local scale. Now we realise the modesty of our knowledge about their distribution in our country. We are grateful to the Rufford Foundation for the opportunity to gain new insights about this group of insects in Serbia and we hope that this cooperation will continue in the future.