

Final Project Evaluation Report

Your Details	
Full Name	Iva Miljević
Project Title	Preliminary research of the distribution of threatened saproxylic beetle species in National park Kozara
Application ID	24096-1
Grant Amount	£5,000
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Date of this Report	29.03.2019.

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
Conducted field research of saproxylic beetle species with the focus on threatened species				Research fully conducted, determination of gathered material finished for all beetle species (not only saproxylic); 700 data points collected, a total of 54 beetle species (25 saproxylic); 44 new species for the park.
Create preliminary list of present beetle species				Detailed preliminary list created (54 beetle species out of which 25 are saproxylic); additional desk research was done in order to determine previous beetle findings within the Kozara National Park and make a comparison.
Create collaboration with the management staff of NP Kozara				Collaboration established through regular field visits (12), meetings (2) and workshop (1). Employees of the park showed great interest in topic and were helpful during the field visits. During our workshop, it was discussed about the current state of forests within the park, their present and future management practices as well as results of the research and their importance.
Raise awareness on the importance of saproxylic beetles and its conservation				Dozens of articles about the research and the results published in printed media as well as via online portals and social networks. We received many calls from media with additional questions and we were part of three radio shows.

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

There was no major difficulties during the project implementation. The only difficulty that arose was a lot of time needed to determine all the collected material which is why this evaluation form is sent with (accepted) delay.

It was expected that some of the bigger installed traps will be damaged or destroyed by irresponsible tourists, but it didn't happen. From the beginning of the project, the staff knew where the traps were and they paid regular visits to check if everything was in place. In addition to that, each trap had a visible sign explaining that it served for the benefit of park and asking not to be touched.

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

- a) 44 new beetle species for the territory of Kozara National Park (three endemic species to Europe (*Clypeorhagus clypeatus*, *Anisarthron barbipes* and *Cucujus cinnaberinus*), global IUCN Red List (2 VU, 1 NT, 1 DD), IUCN European Red List of saproxylic beetles (11 LC, 4 NT, 1 DD), 3 Natura 2000 species (*Lucanus cervus*, *Morimus funereus* and *Cucujus cinnaberinus*)); discovered new sites for Natura 2000 species;
- b) Established very good communication with the park's management and base for future collaboration;
- c) Raised general awareness of wider population on scientific research and saproxylic beetles importance.

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

Regarding NP Kozara's management team, they were involved on regular basis (especially during the field visits). They were educated about the habitats, their maintenance and conservation measures and at the same time they were of great help at the field.

Local community from Prijedor Municipality was informed while sharing promotional materials (cotton bags, t-shirts, magnets) and as a constant reminder, they will have informative board on saproxylic beetles located at the central memory zone of the park called "Mrakovica".

Students were involved in field work at two occasions.

5. Are there any plans to continue this work?

Yes, there is a plan to continue this work. It would be of great importance to continue conducting research and focus on groups that this research showed as most interesting and thus ensure their existence in the long run. This would be possible by preserving their habitats.

Since this project resulted with 44 new species for the park and 3 Natura 2000 species, it is certain that there are even more species to be discovered.

For this purpose, it is planned to apply for the 2nd Rufford Small Grant.

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

The results of the research are already sent to all media in Bosnia and Herzegovina and are widely published in daily newspapers, online portals and magazines (dozens of articles) as well as shared via social networks (Facebook, Instagram). There were even three radio shows covering the story of this research.

The official results, such as detailed list of found species (with habitats, GPS coordinates etc.) will soon be delivered to the national park and the Republic Institute for Protection of cultural, historic and natural heritage of Republic of Srpska. This document will serve as a basic template for future data collectors in the Park.

In addition to that, it is planned to publish obtained results in Scientific Bulletin of the Faculty of Forestry during this year.

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

The grant was used throughout 2018 and January 2019 (for the informative board), but mostly during the field visits that lasted from April to October 2018. Even though the evaluation form is sent with 2 months delay from the originally proposed deadline, there were no unexpected additional costs.

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
Researcher fee	230	230		
Promo material (t-shirts/cotton bags)	300	417	+ 117	Promo materials turned to be of a slightly different price since there was less than 100 pieces produced by item.
Books/taxonomic keys/field guides	150	283	+ 133	It was a need to purchase/photocopy more key guides than proposed since the

				determination of all material (not only saproxylic beetles) was made.
Materials for research (traps, cages, funnel, lens and boxes, etc.)	550	450	- 100	These costs turned out to be smaller since some recycled materials were used.
Workshop	200	180	- 20	
Information board (installment + design cost) (100 design, 150 instalment)	250	250		
Brochure (print + design cost) (150 design, 350 print)	500	500		
Travel cost (B.Luka – Mrakovica and ride through Park)	700	600	- 100	Travel cost was shared few times with colleagues (outside the project team) which enabled some savings.
Accommodation and food (app. 22 days x 2 persons x 30 GBP)	1320	1440	+ 120	Since additional students were brought to NP Kozara and taught some basics on research methodology, cost are slightly bigger.
GPS device (eTrex 30x Topo Active Eastern Europe)	200	219	+ 19	
Notebook for personal use	600	598	- 2	
TOTAL	5000	5167	+167	Exchange rate used: 1 GBP = 2.30 BAM The difference in the amount of 169.17 GBP was covered by the project coordinator.

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

It would be very important to continue conducting research in Kozara National Park, maybe even widen the area of research while putting focus on concrete families of saproxylic beetles (e.g. *Elateridae*) and establishing adequate monitoring practices.

Park's management is willing to help marking and put even more protection on habitats that are of greater conservation importance (where some specific species were found) and it would be possible with the continuation of research, data analysis and monitoring.

In addition to previously stated, it would be of great benefit to create a kind of an creative awareness raising campaign aiming to present these insects as interesting, valuable and important for protection.

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 logo was used on all promo materials of the project (cotton bags, t-shirt, magnets, brochure and informative board). The name of the foundation has been used at every occasion when the project was presented (media releases, workshop, posts on social media, general communication).

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

Dejan Radošević – Dejan is working at the Republic Institute for Protection of cultural, historic and nature heritage of Republic of Srpska and he was of great help with the legal documentation and permission for obtaining research. He will also be the one to receive all the resulting data on species.

Team of the researchers from Center for Environment (**Nataša Crnković**, **Jasmin Pašić** and **Jelena Ivanić**) were of great help at the field (tree trunk inspection and emptying of the traps). At every occasion when the work of the Center for Environment was presented, they would present this Rufford project as well.

Vladimir Stupar was included from the beginning of the project and helped with choosing the most suitable habitats for traps instalment. Later, he helped in discussions regarding present practices in forestry and guidelines to be proposed to the Park. **Aleksandra Anja Dragomirović** (Center for Environment) was also included into this topic.

Aleksandar Škorić was in charge of all design and visuals.

The determination of collected material was done in cooperation with the colleague from Hyla Association (Zagreb, Croatia) **Vedran Lucić** while unidentified material was sent to the National Museum of Bosnia and Herzegovina for further identification of other insect groups collected.

12. Any other comments?

Thank you for supporting this research! It was of an enormous benefit, not only for the National Park Kozara and the database but for my personal development regarding the research and identification of beetle species.

Thank you very much for enabling the realisation of this project!