

The Rufford Small Grants Foundation Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants 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	DRAGANA ŠNJEGOTA
Project title	Monitoring of grey wolf population from Bosnia and Herzegovina with the aim to create conservation strategy
RSG reference	17978-1
Reporting period	11 months
Amount of grant	£4981
Your email address	snjegotadragana@gmail.com
Date of this report	June 28, 2016

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
Field monitoring of grey wolf individuals and confirmation of known transect zones			X	We performed field monitoring by using photo traps in order to conclude about wolves' presence and their activity at the localities scheduled by the project. Photo traps were installed at the feeding places and transect zones. Furthermore, we performed field trips with the aim to find signs of wolves' presence (paw prints, faeces, and hair). We confirmed transect zones at all three localities as we found signs of wolves' presence at each of them.
Non-invasive sampling		X		Non-invasive sampling based on faeces collection was completely achieved. <i>Hair trapping</i> method wasn't successful as it was expected due to the information obtained from the experts that performed non invasive sampling.
Creation of strong network among local land managers, local community and government			X	We created a strong network with all levels of social and government structure, which is the most important step for the project like this one. Local land managers helped us a lot in the monitoring section. We made the first contacts with representatives of the government who might help us create a management plan, which is a long term objective of this project.
Molecular analyses of collected samples			X	All collected samples will be analysed (some of them have already been analysed) in Laboratory of Genetics, at the Faculty of Sciences, University of Novi Sad and these data, based on microsatellites and mtDNA analyses for grey wolf population from Bosnia and Herzegovina, will be published in a scientific journal. Some data have

				already been published (mentioned in the first report).
--	--	--	--	---

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

Generally, the project ran quite well and we experienced some minor problems: we had several periods of heavy snow blizzard during which we weren't able to access certain locations for days, to check photo traps and switch batteries. Furthermore, bad weather conditions caused a car crash in which we participated and it took some time to have the car repaired.

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

- We confirmed presence of wolves in our localities, but in **much less number** than it is presented to the community.

- We managed to collect a quite good sample of grey wolf population from the locations scheduled in the project, for genetic analyses, in order to detect population genetic diversity and structure and to determine conservation management units. Without these data, a conservation management plan can't be designed. We hope that we will continue sampling in other locations in order to cover as bigger territory as possible and to have more complete results.

- We made strong networks with local communities and government, but also with scientists from the neighboring countries that already created a conservation management plan for wolves from the countries they were coming.

All this could help us in our attempts to protect wolves in Bosnia and Herzegovina.

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

We directly included representatives of local communities (hunting organisations, organisations for forests protection, local governments, etc) in our project, in the way to be members of our team and help us with the monitoring. We hope (and we think that we partially made success) that such a team member combination will have impact on the reduction of wolves killing. Local communities will benefit in the way to have a healthy nature (there's no healthy nature without wolves), which is very important for local tourism development.

Participants at the conferences that we attended (particularly students and government representatives) also benefitted in the way to get information about wolves and in possibility to be members of our team and to be included in wolves' protection. This is a very good way for students to broaden their knowledge in conservation aspects.

5. Are there any plans to continue this work?

We hope to apply for the 2nd Rufford Small Grant for the period of 2016/2017 and to enlarge the territory of monitoring and sampling. That is necessary if we want to get a more detailed insight into the grey wolf population, in order to make a good conservation management plan. Our photo traps will stay in the locations included in this project because we can't and don't want to stop performing monitoring, especially in the period when new litters are produced.

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

Results of our work have already been shared through the conferences that we attended and papers that will be published in scientific journals.

Šnjegota D., 2016. Grey Wolf in Bosnia and Herzegovina. Book of Abstracts from Rufford Small Grants Conference in Bosnia and Herzegovina "Nature knows no boundaries", March 21-22, Banja Luka, Bosnia and Herzegovina, p.60.

Šnjegota D., Đan M., Veličković N., Stefanović M., Trbojević I., Ćirović D., 2016. Genetic variability and population structure of grey wolf (*Canis lupus*) from Bosnia&Herzegovina. *Balkan Journal of Wildlife Research - accepted for publication*.

Šnjegota D., Veličković N., Trbojević I., Stefanović M., Obreht D., Ćirović D., Đan M., 2015. Microsatellite and mtDNA variability in grey wolf (*Canis lupus*) population from Bosnia & Herzegovina. Book of Abstracts from Third Symposium of Biologists and Ecologists of Republic of Srpska. Faculty of Science and Mathematics, University of Banja Luka, November 12-14, Banja Luka, Republic of Srpska, p. 28

Šnjegota D., Trbojević I., Veličković N., Stefanović M., Ćirović D., Đan M., 2015. Genetic variability and population structure of grey wolf (*Canis lupus*) from Bosnia & Herzegovina. Book of Abstracts from 4th International Hunting and Game Management Symposium, November 5-7, Velenje, Slovenia, p. 91

New data will be obtained in scientific journals too.

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

The grant was used over a period of 11 months (August 2015 – Jul 2016). This period was long enough to make basic conclusions about wolves' activities and to perform sampling.

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
Photo camera (1 piece)	140	132.5	+7.5	£7.5 was the difference in planned budget and we used this difference to buy a box for wire (£3.94) and work gloves (£2.39) for hair trapping.
GPS (1 piece)	151	151	0	Fully spent.
Photo traps (4 pieces)	737	643	+94	During the period that we applied for the grant and the period that we waited for the results, the price of the photo traps changed so we weren't able to order 4 of them (as we stated in the project) so we ordered 3 photo traps. £94 was the remaining sum and we used this extra money to: 1. cover costs of photo trap delivery £47 2. buy memory cards £18.40 (£28.6 remained in the end)
Batteries	303	332.58	-29.58	£28.6 from the photo traps rest was used to cover this over spent budget for batteries
Field work, travel expenses (fuel)	1890	1924.95	-114.53	Minus was covered from the fee.
Accommodation and food at the time of fieldwork	1070	1104.61	-34.61	Minus was covered from the fee.
Fee	690	690		Spent to cover minuses in budget from other items, and reduction of salaries during the field trips.
Total	4981	5150.64	-169.64	

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

The most important step is to continue this project. We have already done a huge job and have created contacts with the people who can help us achieve our long-term objective – the design of a conservation management plan. In each locality we made a small team of people that helped us in our research and monitoring. So, next steps include: enlargement of monitoring territory, sampling from new localities and further genetic analyses and the formation of a new small teams. Since we have the first and concrete observations and information from the field, the next step should include organisation of additional lectures for publicity about wolf population in Bosnia and Herzegovina.

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

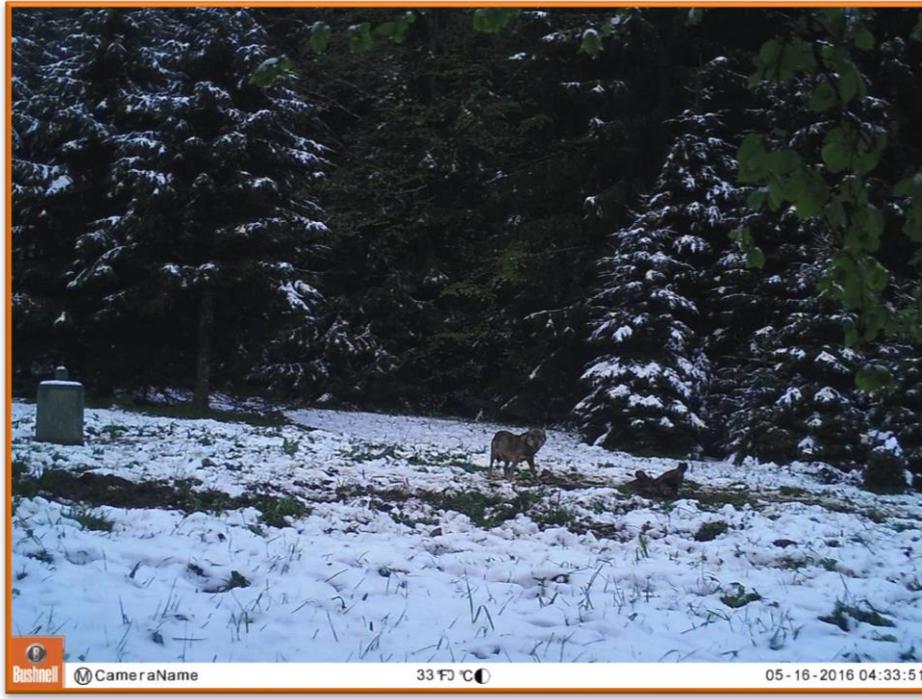
RSGF logo was used (according to the instructions received from the RSGF) in papers for scientific journals (in acknowledgments) and also in presentations that were presented during the conferences that we attended.

11. Any other comments?

It was a great pleasure to be a Rufford grant receiver and my team wants to say a big thanks to the Rufford foundation. We hope that the story doesn't end here and that we will continue our collaboration.

PHOTOGRAPHIC DOCUMENTATION

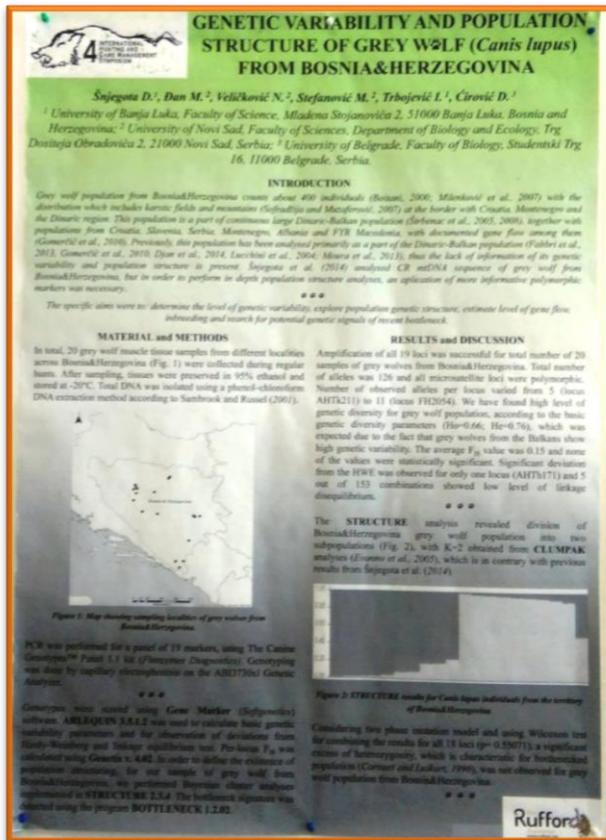
1. Female wolf at the location Janj



2. Male wolf at the location Janj



3. Poster presentation from the Hunt symposium, Slovenia, Velenje



4&5. Paw prints in the snow



6&7. Wolf traces.



8. Wolf faeces.



9. Working in the field.



10&11. Photo traps.



12. Setting hair trap.



13. 3rd Symposium of Biologists and Ecologists of Republic of Srpska; Faculty of Science in Banja Luka, University of Banja Luka.



14. Wolf adult at Janj location



15. Rufford Small Grants Conference in Bosnia and Herzegovina "Nature knows no boundaries"



16. Dead wolves

