

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. 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. 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	Igor Trbojević
Project title	"Distribution, status and protection of brown bear (<i>Ursus arctos</i>) in Bosnia and Herzegovina"
RSG reference	17501-1
Reporting period	July 2015 to July 2016
Amount of grant	£4971
Your email address	igortrbojevic@yahoo.com
Date of this report	15. July 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
Overall objectives:				
Increase the level of knowledge on species		Partly increasing knowledge about the species (brown bear)		This objective will gradually increase with the duration of the project. As much we work on a given issue, it will rise to increasing knowledge about bears.
Establish the presence of the species in specified areas			Presence of the species in specified areas is established.	<p>Bears are documented on all three locations, a total of 15 individuals:</p> <p>1.) Locality Mountain of Manjača - six individuals: three adults (one older male, one younger male and one female) and three cubs (All individuals are registered and recognised on picture from photo traps, measuring traces and seen from hunting watchtower);</p> <p>2.) Locality Mountain of Uzlomac - six individuals: four adults (one older male, two younger individuals and one female) and two cubs (All individuals are registered and recognised on picture from photo traps,</p>

				<p>measuring traces and seen from hunting watchtower);</p> <p>3.) Locality Mountain of Čemernica - three individuals: one adult male, one adult female and one cub (on this locality have not yet completed the research, the end of research is planned in April 2016); (male was seen from hunting watchtower, female and young are registered on photographs from photo traps and measurements of trace).</p> <p>In addition to these data, we find out the locations of other bears (three individuals), which inhabited the hill areas around the city of Banja Luka. So, in total we registered 18 individuals of the brown bear in the research area.</p>
Determine the permanent localities (constant presence of the species in the region)			Permanent localities in this part of B&H was established, but not in the entire	The rest of the region will be processed during the further work in the field (in the 2nd, 3rd, 4th and 5th year of the project). Only when the field work processing of all

			B&H.	parts of B&H, expected full knowledge of the constant presence of individuals.
To find out the size of the territory of individuals	Size territories of individuals was not possible to find out in this part of the project, since individuals are not captured and marked with GPS collars.			How project planned 5-year work on this species, this part will be done in the 3rd, 4th and 5th year of the project (as planned due to higher financing needs).
To establish the dynamics of movement of individuals	In this part of the project it was not possible to establish the dynamics of movement of individuals.			On this objective will be working in the 3rd, 4th and 5th year of the project.
Establish the cause of death of individuals			Established death of one individual and the wounding of another individual.	One individual was killed because she entered in a populated area, and represented a danger to the citizens. The wounding caused by poaching and there is clearly much hoped for killing these individuals (female with three young bears).
Better use of habitat			This objective was successfully	How these mountains, where the research was performed, do not have enough drinking water

			<p>evaluated on the basis of the situation that occurred in the field.</p>	<p>sources, it would be necessary to do several artificial watering place for animals.</p> <p>In cutting of forest was noted that fir and beech forests dominant in cutting. As for the restoration of the forest used only fir tree. This is very important because bears in the diet is also used young shoots of beech.</p> <p>Here is also a wrong relation with additional nutrition of animals. In fact, in the absence of food it is necessary to a continuous supplemental feeding, not only sometimes, as do hunting associations. Wrong use of habitat often leads to migration of individuals.</p> <p>In planning cutting of forest, performed by the forestry enterprises, are not taken into account the ecological and biological needs of organisms that inhabit this habitat. Therefore, one of the future tasks of the project will be the introduction responsible persons in the Forest Management Units with movements of bears in</p>
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				a given habitat.
The relationship between humans and bears			The relationship between bears and people is in very poor condition.	The local human population does not have much tolerance for this species, which is manifested by frequent poaching (of which we have already been warned by the authorities). However, the fact is that bears inflict some damage to local residents (destroying orchards, beehives ...). The reason for such behaviour of bears is because their natural food destroys with a large forest exploitation.
Long-term objectives:				
Assessment of the condition of species (abundance)	In this part of the project is not possible to estimate the population size (abundance)			
Management plan for species		Partly solve of this objective		Although this objective planned access only at the end of the entire research, events that occurred to us are not allowed to wait, so we are at the beginning of 2016 years entered into negotiations with the relevant ministries about making management

				plan of brown bear population.
Maintenance of the current status of protection or influence on the change of status into permanent protected species	About this objective will all know at the end of 5 years of research.			

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

The only problem we faced is the existence of minefields on some of the localities on which we worked. Most minefields are properly marked, but we, knowing the said situation in the country, in some places used the services of local residents as guides.

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

1. Establish the presence of the species in specified areas. Establish the presence of the species in specified areas is important because without of that information scientists cannot do other research, and which they lead to next objectives and knowledge.

2. Permanent localities in this part of B&H. It is very important to establish a permanent presence of species on this research area, because very often could be heard (as justification for culling) that bears do not inhabit this area but they are just here sometimes staying or passing the area, and then pose a threat to the residents of these regions. Registration of bears in these areas forces responsible institutions and residents of those areas that relate to bears by law (closed season-for now).

3. Management plan for species. Brown bear management plan is very important because Bosnia and Herzegovina still does not have, and is required for better protection and, in general, management of this species. With the Management Plan will lead to more accurate data on population size, as well to other legal solutions that may be conducive to a better coexistence of humans and bears.

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

Local communities were aware of the events of the project on the spot and to everyone's surprise and pleasure actively participated in solving specific tasks (credible and timely reporting of the movement of the bears; in a few instances, we used local residents as guides, because in some parts of localities are still exist mine fields, etc.).

5. Are there any plans to continue this work?

Yes. The plan is that the project lasts 5 years, as stated in the first RSG application.

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

It is planned that the results of the project first present to local and national authorities, and then hunting associations and other interested non-governmental organisations. This is done through meetings that were conducted with the said interested parties. In addition to meetings, the leaders of the project also participated in RSGF congress held in Bosnia and Herzegovina in Banja Luka, March 2016, and on that occasion presented to the public the results of the first year of research.

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

From July 2015 to July 2016 (financial resources for the project were approved in July 2015)

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
Accommodation and food at the time of the fieldwork, for two people	1016	1021.01	5.01	
Travel expenses for field work	1812	1822	10.00	

Photo-traps (5 pieces)	906	1042.93	136.93	At the time of purchase of photo traps, their price was higher than what was planned by the project (a mistake made by the leader of the project).
Fee for two people	1089	937.06	-151.94	Higher spending money (for photo traps) is settled from fee (from the project leader).
Analysis of samples	148	148	0	
TOTAL	4971	4971	0	

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

It is important to continue further research on the whole territory of Bosnia and Herzegovina (as planned with the project), because only with a comprehensive study we can get to the ultimate goals and knowledge.

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?

Yes. We use RSGF logo for our presentation, which we represent on RSGF conference in Bosnia and Herzegovina, Banja Luka, in March 2016. On this occasion, the public was informed about the project and its results.

11. Any other comments?

In October 2015 we talked with Deputy Minister of Forestry, on the subject of the problem we are dealing with. On this occasion, the Ministry acquainted with our work. In March 2016, we actively participated in the workshop which was initiated for the protection and management of bears in the Republic of Srpska and Bosnia and Herzegovina in general (Republic of Srpska is entity of Bosnia and Herzegovina). Since then, Dr Sci. Igor Trbojević actively participate in negotiations with the Ministry and the formation of working groups to solve the aforementioned problems (making brown bear Management Plan).