

## 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>	Shalva Barjadze
<b>Project title</b>	Cave Investigations and Education of Local People for Caves Conservation in Racha Region of Georgia
<b>RSG reference</b>	13537-2
<b>Reporting period</b>	September 2013 – February 2015
<b>Amount of grant</b>	£5613
<b>Your email address</b>	Shalva.barjadze@yahoo.com
<b>Date of this report</b>	29.04.2015

**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
Seminars at schools			+	Information about the genesis of the karst caves in Racha Region, their microclimatic conditions, speleofauna, fossil records and the negative impacts of the anthropogenic factors on the cave environments were presented during seminars at public schools.
Excursions in the caves			+	School pupils were involved in the speleological and biospeleological investigations to learn methodologies of the cave research and principles for the sound management and conservation of cave ecosystem.
Laboratory treatment			+	Materials sampled in the different zones of the caves were treated in the laboratory according to widely used methodologies used in biospeleology and palynology.
Statistical analysis of the received data			+	Correlations of the microclimatic conditions with Invertebrate animals' communities in each cave zone (entrance, twilight, dark) between different caves were processed statistically. In addition, faunistic similarity cluster between invertebrate communities of the investigated caves in Racha Region was compiled.
Publishing and distributing of the booklets			+	Illustrated booklets on microclimatic conditions of the local caves, invertebrate animals associated with each karst cave in Racha region, organic remains (pollen and non-pollen remains) found in the caves and threats caused by anthropogenic factors were published and distributed among the school pupils in Ambrolauri and Oni districts (Racha Region, Western Georgia).

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

During the project no unforeseen difficulties arose.

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

1. Cave microclimatic conditions, cave biodiversity and palynological materials found in the caves were investigated in the disturbed and undisturbed caves of Racha Region, Georgia.
2. Seminars and excursions which were held during the project decreased the influence of the anthropogenic factor (pollution and vandalism) on the cave ecosystem. Correct opinion about the necessity of the cave conservation and role of the local people in the conservation activities were formed in Local people and school pupils of Racha Region.
3. This project provoked interest in the disciplines associated with the cave investigation (Geography, Biology and Palaeontology) among local school pupils.

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

We think that seminars and excursions have made positive influence on local school pupils. From the seminars they got more information about the caves, cave invertebrate communities and their conservation, anthropogenic factors that affect cave biodiversity and block conservation actions. School pupils expressed interest to get bachelor's degree in specialities which are associated with cave research - Biology and Geography.

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

It's the second project in RSG Foundation and I plan to write proposal for the Booster Grant to start educating local communities about cave ecosystem and their importance to protect caves from the influence of anthropogenic factors in Samegrelo Region, Georgia. Besides, I plan to write project proposal for programme: "Researches with participating of the school pupils" of Shota Rustaveli National Science Foundation to investigate caves invertebrate communities in Tskaltubo district, Imereti Region, Georgia.

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

My co-workers and I, plan to make presentations about our research for my colleagues and students of Agricultural University of Georgia and Ilia State University. We included results of the biospeleological investigations in the karst caves of Racha Region in recently published monograph: "Annotated List of Invertebrates of Georgian Karst Caves". In addition, we plan to prepare publications based on biospeleological and palynological investigations and publish them in peer-reviewed journals. It will help us to share results of our investigation with the other colleagues.

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

The RSG was used from September 2013 to February 2015. This period corresponds to the anticipated length of the project.

**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
One digital camera	358	358	0	
One pocket weather meter	300	300	0	
Chemicals for palynological investigation	100	100	0	
Food for pupils during field excursions	480	480	0	
Travel expenses from Tbilisi to field area	330	300	-30	Travel expenses were decreased a little
Minivan rent (for field excursions)	750	750	0	
Fuel for local travel	135	165	+30	For the last trips prices on the fuel increased
Lodging	2070	2070	0	
Per diems	720	720	0	
120 block-notes (for pupils)	96	96	0	
120 pens (for pupils)	24	24	0	
Booklet publishing	250	250	0	
<b>Total</b>	<b>5613</b>	<b>5613</b>	<b>0</b>	

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

I think that two important next steps should be started:

1. To investigate caves of Samegrelo Region of Georgia for assessing cave biodiversity, microclimatic conditions and palynological and non-palynological remains existing in the caves and to reveal the negative impacts on the caves caused by human activities.
2. To establish protected territories-Natural Monuments of Sakishore, Tsakhi and Nikortsminda Meliis caves by taking into account a high number of invertebrate species in the abovementioned caves (28 species - in Tsakhi Cave, 17 species - Nikortsminda Meliis Cave, 11 species – Sakishore Cave) and existence of local endemic species in each cave. There are the following local endemic species of the invertebrates in the caves: *Caucasolidium cavernicola gogoleticum*, *Bryocamptus birsteini* and *Bryaxis hypocritus* in Tsakhi Cave, *Inotrechusinjaevae*, *Dina ratschaensis* and *Nemaspela femorecurvata* in Sakishore Cave, *Troglocimmerites djanaschvilii* and *Ratcheuma excorne* in Nikortsminda Meliis Cave.

**10. Did you use The Rufford Foundation 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 always posted during the seminars in the public schools of Racha Region, Georgia. Besides, this logo always was on the title slide of the presentations. Active school pupils were rewarded by the cups with the RSGF logo. In addition, the logo was used in the published booklets, which were distributed in public schools of Racha Region. I gave an interview about our project activities in Racha Region to a local newspaper “Ambrolauri Moambe.”

**11. Any other comments?**

We are grateful to the Rufford Small Grants Foundation, which supported financially our educational activities for local people in Ambrolauri and Oni districts (Racha Region) about the importance of cave conservation to avoid extinction of the local endemic invertebrate species and about local people's role in reducing human pressure on the karst caves of Racha Region.