

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	Jana Bedek
Project title	The Conservation of Drinking Waters through Conservation of <i>Eunapius subterraneus</i> , the Only Subterranean Freshwater Sponge in the World – Croatia
RSG reference	33.03.09
Reporting period	25 August 2009 - 25 September 2010
Amount of grant	£11,971
Your email address	jana.bedek@hbsd.hr
Date of this report	07 February 2011

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
Educational and Promotional Film			√	20-minute-long film was made by Tomislav Rataj. It was presented in local schools, at the Open Lecture (a segment of the film) and on the local and national TV. (http://hbsd.hr/Spuzva/Edukacija_eng.html)
Educational Workshops			√	Nine educational workshops were held during October and November in 2009.
Open Lecture "Natura 2000 Region – What Does It Mean?"			√	The Open Lecture was held on 5 th November 2009 in Ogulin; four lectures were given and a segment of the Educational Film was presented. The Open Lecture ended with the Round Table about the Ogulin Region as a Natura 2000 Site.
Preparation for the Permanent Exhibition at the Ogulin Local History Museum			√	During the fieldwork research in the Ogulin area in September 2009 more than 4,000 photographs were taken showing endemic cave fauna, speleothems and cave passages. More than 6 hours of raw film material was made.
Research on the Subterranean Biodiversity in the Area as a Basis for Natura 2000 Network Proposal			√	The field research was 10 days long. There were 14 speleologists, biospeleologists and cave divers who visited 28 caves in total. About 650 specimens were collected and 49 taxa identified.
The Ogulin Cave Sponge as an "umbrella species" and Nature Protection example			√	The web page about the Ogulin cave sponge was made, both in Croatian and English. (http://hbsd.hr/Spuzva/index_eng.html)

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

While planning the educational workshops for schools, we learned that some schools preferred October and November as the best months for the workshop schedule. Since the project was supposed to end by September 2010, we decided to organise the workshops during the autumn of 2009, even though it was too early and we had not finished the film. During our workshops we presented some scenes from the film but the finished film was not sent to schools before September 2010. The teachers were then able to show the entire film to their pupils.

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

1. Initiated legal protection of specific sites:

In 2010 the "Natura Viva" Public Institution for Protected Natural Values Management of the Karlovac County started to make the Environmental Impact Assessments and Baseline Studies for the Protection of the cave Špilja u kamenolomu Tounj as a geomorphologic monument. The cave was preliminary protected in 2008, partly due to the RSGs project results. The Croatian Biospeleological Society (CBSS) was invited to participate in the study. All research results from the previous and the last RSGs projects have been made available for the study, and more research of the cave will be conducted.

In 2010 the State Institute for Nature Protection started to draft the Proposal for the preliminary protection of the Modruško zagorje region as a Nature Park or a Regional Park, based on several proposals given by the CBSS. All research results from the previous and the last RSGs projects have been made available for the study.

2. Raised local community awareness:

During nine educational workshops more than 900 pupils listened to the lecture about their subterranean fauna, their endangerment and the issues concerning the local drinking water. The Powerpoint presentation and the film were given away to teachers for future generations. The popular webpage about the Ogulin Cave Sponge (http://hbsd.hr/Spuzva/index_eng.html) was finished and put online in September 2010. It contains all important information about the region, the Ogulin Cave Sponge and other important subterranean fauna. The leaflet and the poster from the previous RSGs projects are online now, including the film (http://hbsd.hr/Spuzva/Edukacija_eng.html).

3. Local stakeholders were involved in the project:

There were 34 persons who participated in the open lecture and who came from: the State Institute for Nature Protection (Director of the Institute and others), the Town of Ogulin (two Deputy Mayors), the Ogulin City Council (President), the Speleological Club Ursus Speleaus from Karlovac, the Speleological Association Ozren Lukić from Zagreb, the "MI" Catholic Committee from Ogulin, the Ogulin Department of Croatian Mountain Rescue Team, the Department of the Chakavian Council Modruš and the citizens of Ogulin and neighbouring communities. Four lectures were held: Ivana Plavac (State Institute for Nature Protection), Jana Bedek, Petra Kovač Konrad and Kazimir Miculinić (all from the Croatian Biospeleological Society). After the lectures some scenes from the film were presented, and the roundtable was organised with all the participants. The local issues concerning drinking waters and nature conservation were discussed during the roundtable.

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

Local teachers were largely involved in the educational workshops. They continued to give lectures after the Project and present the film to new generations. Due to our good communication with the teachers, we were invited to give a lecture to three **Karlovac County Professional Councils of Teachers: Primary School Biology Teachers, Primary School Geography Teachers and High School Geography Teachers**. The first two were held in the course of the project, whereas the third one will be held in February 2011. The film and the Powerpoint presentation were given to all teachers from these councils for their future use as presentations in their schools.

Two Deputy Mayors of the Town of Ogulin and the **President of the Ogulin City Council** participated in the open lecture. This was the first serious contact with the Mayor's Office. They informed us that they had not had any knowledge about Natura 2000 and the Ogulin region being proposed as a Natura 2000 Site. Their interest in the subject of the Round Table was large, so they made a decision that the Town of Ogulin will participate in project funding for the first time. The Sponge, as an umbrella species of the Ogulin area, was presented to the Mayors.

The Open Lecture was organised by the **"MI" Catholic Committee** from Ogulin, as was the case with all our previous Open Lectures.

5. Are there any plans to continue this work?

The railway, which is planned to be built in the near future, is another big threat for nature in wider Ogulin area. According to the plans, it should run near the most important sites in the Modruško zagorje region, including the submerged cave Izvor Zagorske Mrežnice, which is the main water well for the entire region. The marshalling station for the railway is planned on the karstic field Drežničko polje, which is in the catchment area of water supplies for the Ogulin region. Therefore, the most important next step is to declare the Modruško zagorje region as a Nature Park or a Regional Park, and make an attempt to relocate the railway to some other region, which is less important for biodiversity and drinking water supplies. In 2010, the State Institute for Nature Protection started to draft the proposal for preliminary protection, and it is vital that the CBSS participates with all RSGs results in drafting of that proposal.

One of the biggest caves in Croatia, which is more than 8 km long, is the cave Špilja u kamenolomu Tounj, which has been preliminary protected as a geomorphic monument since 2008. It is necessary to continue working on its legal protection. However, the only realistic way to save this cave, which is largely endangered by mining in the quarry, is to make it important to the local community. The benefit of the sustainable use of the cave as a show cave can play a major role in the entire regional development. Our goal is to continue working on its legal protection, including the sustainable development of the region as a tourist area instead of the industrial area.

We are planning to work with the State Institute for Nature Protection on the proposal of the Ogulin region as a Natura 2000 site.

The permanent exhibition at the Ogulin Local History Museum has unfortunately been postponed until 2013, but we are planning to work continuously on its preparation (collecting photo and video material).

It is impossible to implement any conservation without the understanding of local stakeholders, so our plan is to continue our good communication with the Mayor of Ogulin and the local government. The first real contact was established in 2009 during the open lecture, which made a small, but an important change in their perception of nature conservation.

Although we conducted a lot of field research, the subterranean habitats and life are far from being known. Some caves have not been physically fully explored, since the only way to explore them is by cave diving. We plan to continue exploring them as much as technical capabilities, equipment and physical abilities of cave divers allow us.

Scientific papers with some of the RSGs project results are in preparation, including the scientific description of new species of the aquatic isopod of the genus *Monolistra*.

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

All research results have been made available to state and local stakeholders. They have already been used for two proposals for drafting of the Environmental Impact Assessments and Baseline Studies for the Protection. One proposal refers to the cave Špilja u kamenolomu Tounj as a geomorphologic monument and the other to the Modruško zagorje region as a Nature Park or a Regional Park.

All results will be made available for the future proposal of the Ogulin region as a Natura 2000 site.

The popular webpage about the Ogulin Cave Sponge has been put online for several months now, with in-depth information about the project, the region, other cave animals, endangerment etc.

All photo and video materials will be used for the preparation of the permanent exhibition at the Ogulin Local History Museum.

The presentation used in educational workshops and the film were given away to the teachers and will be presented to future generations. They were shared not only with the schools in which the Workshops were held, but also with the majority of other schools in the Karlovac County.

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

All project activities were conducted during the anticipated length of the project, 13 months, except the report. The film and the webpage were finished one month later than it had been anticipated within the project timescale.

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
Counterparts wages (10 days x 5 researchers + 7 days x 2 lecturers)	£1280.00	£2000.00	£720.00	Additional research (10 days x 8 researchers)
Counterparts wages (10 days x 4 cave divers)	£1600.00	£1800.00	£200.00	Additional research (10 days x 5 cave divers)
Overnight costs (8 nights x 9 researchers + 5 nights x 2 lecturers)	£1640.00	£1900.00	£260.00	Additional research (8 nights x 11 researchers)
Travel (300 km x3 tripsx2 cars + 300 km x 2 trips)	£480.00	£740.00	£260.00	Additional research
Food (10 fieldwork days X 9 researchers and 7 days x 2	£280.00	£2350.00	£270.00	Additional research

lecturers)				
Alcohol (2 l)	£10.00	£10.00		
Sampling bottles (100)	£10.00	£10.00		
Storage bottles (1 package (1000))	£6.50	£6.50		
Tweezers (5)	£7.50	£7.50		
Cave led diode lights (6)	£48.00	£48.00		
Battery (25)	£125.00	£125.00		
DVD (20)	£4.00	£10	£6	50 DVDs were needed
Wide-angle lens for photo camera (1)	£774.00	£748.24	£-25.76	
Caving garment (2)	£160.00	£94.63	£-65.37	Only one garment was necessary
Counterparts wages for taping film	£800.00	£1000.00	£200.00	The film is twice long than it was planed in the project
Counterparts wages for preparing film	£700.00	£1000.00	£300.00	The film is twice long than it was planed in the project
Mascot design	£150.00	£100.00	£-50.00	
Web page design and implementing	£800.00	£474.05	£-325.95	Smaller web page was designed
Counterparts wages for laboratory work (6 researcher)	£900.00	£900.00		
Counterparts wages for preparing the lectures (2 researcher	£400.00	£400.00		
Total	£11971.00	£13323,92	£1352,92	the Town of Ogulin participated in project funding

£1 = HRK 8.71

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

The other important and endangered sites are the caves in the Modruško zagroje region, which will probably be protected as a Nature Park or a Regional Park. But again, this will not be enough for its protection unless the local community understands its values. We are planning to make the education trail entitled "The Ogulin Cave Sponge Route" in cooperation with the Tourist Board of the Town of Ogulin and present the values of this area to the local community and tourists through several educational roundtables.

Since the permanent exhibition is postponed, we feel that it is important to make a smaller exhibition in Ogulin.

We plan to publish a small booklet, which will be important as an integral part of the educational trail and the exhibition.

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?

The RSGF logo was used in all materials during the educational workshops (the Powerpoint presentation), which were subsequently, together with the film, given to the teachers for future lectures. The Ogulin Cave Sponge website (http://hbsd.hr/Spuzva/index_eng.html) also includes the logo and the link to the RSG website.

The project was covered by different media that mentioned the RSGF in their articles and broadcastings:

1. Five articles in daily newspapers.
2. One article in weekly newspapers.
3. Three articles in different journals.
4. Three broadcasts on the Croatian National Television mosaic show "Dobro jutro Hrvatska".
5. One broadcast on the local TV station "TV 4 rijeke" on 7th November 2009.
6. Live interview on the local radio (Ogulin) on 5th November 2009.
7. Four articles on different web sites.

11. Any other comments?

RSGs made real impact on nature conservation in wider Ogulin area, especially in the local community. The subterranean fauna was hidden for them until our projects, and now they started to realise that things that are not obvious are sometimes of the utmost importance. The largest number of endemic species in Croatia includes precisely the species among the subterranean fauna of karst regions, such as a very important Ogulin region. The difficulty is to present these small and not very likeable creatures, like the Ogulin Cave Sponge, to people. And with the help of RSGs we did it!

We thank The Rufford Small Grants Foundation for their kind support and we hope to receive more support for our next project to be able to continue with our work!