

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	Gashchak, Sergij P.
Project title	Fauna of bats as an indicator of the most valuable natural complexes in Chernobyl exclusion zone worthy of legislative protection.
RSG reference	56.02.10
Reporting period	July 2010 – July 2011
Amount of grant	£5982
Your email address	sgaschak@chornobyl.net
Date of this report	29th September 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
1. Survey of bats populations in up to 40 locations of the region		+		Our initial plans were too optimistic. In fact, we have done only eight locations (4-15 km ² each). At another approach and larger intensity of field work the total number unlikely would exceed 20 locations over 18 months. However, the later was impossible on different reasons, and the actually obtained results are large achievement taking into account the opportunities and capabilities we had
2. Finding rare species			+	Over the project we found <i>Barbastella barbastellus</i> (once) and <i>Myotis dasycneme</i> (two more locations), both are NT (IUCN 2009). Finding of <i>Nyctalus lasiopterus</i> in 2009 was not repeated in 2010-2011
3. Individual marking of the bats (by rings)			+	Due to this activity we got 28 recaptured animals (2.8%), defined size of their home areas
4. Spatial distribution of different bat species within the region			+	Species specific pattern was found out.
5. Description of the study sites		+		More detailed description will be carried out later, we need to analyse the state schemes of the forest composition (official data). We have requested it but still did not received
6. Elaboration of proposals on conservation and protection of natural complexes in the region		+		The first proposals were prepared in first edition. We need more formal information about the lands, it is in work. Basing on the studies data we applied to the Global Ecological Fund for the support, and to Ministry of Emergency of Ukraine
7. Public relation in concern of the project results and activity		+		Results of the study were presented at 15 th International Bat Research Congress in Prague, Czech Republic (Aug 2010), and in one publication. We got agreement to place information of the project results at two profile websites, it is expected by the end 2011

8. Practice for students			+	During 2010-2011 four MD students (including three girls and one boy) took part in performance of RSG project, data obtained in Chernobyl were included in MD thesis of one of them
9. Strengthen the previous and set new scientific relationships in concern of the project objectives and goals			+	Relations with Karazin Kharkov National University and National Nature Park "Gomolshansky Lesy" got a regular base. Possible direction of scientific collaboration was discussed with Texas Tech University USA) and Leibniz Institute for Zoo and Wildlife Research (Germany)

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

There were several unforeseen difficulties. The first, all participants of the project (including PI) are in fact "volunteers". The RSG project is not an official part of their permanent professional or education activity. They had (have) plenty other duties and obligations, some of which are planned, some – unexpected. For example, my own administration does not mind if I carry out the RSG project, but not to the prejudice of main business, as a Deputy Director I often do not have a choice. So, regardless of the RSG time schedule we had to cancel or to postpone the studies. The second, availability of the appropriate car. The exclusion zone is very huge and difficult for driving and exploration. Off-road car is necessary. We have one (Nissan Patrol) in our Center, but it was not always available as desired. Rent of a similar car is out of the project budget. We did it only once when own car was in repair (result of the RSG project activity), and there was a threat for the project performance. The third, in the beginning we anticipated that the new bat-detector (Pettersson D240x) is able to reveal presence of most of species, however it was not so. In fact, it gave us only tips of some species. However, we got a lot of digit records and hope that in future after additional training and mastering will meet the target. On a reason of the mentioned above and some other difficulties and obstacles we did not have enough time and data to finish the project as desired. It will be continued after.

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

1. The presence of one more endangered species *Barbastella barbastellus* (NT, IUCN 2009) was proved, and it coincided with a very valuable in other respects location, prospective for the conservation and protection. Another species of the same status – *Myotis dasycneme* – was found in two more locations, this fact indicates that conditions of the exclusion zone are absolutely appropriate for this rare species.
2. We came to decisions about what areas of the exclusion zone are worthy protection (increase of protection category) in the first order, and comprehensively grounded it. There are at least two such areas: large (near) in NW sector and smaller (near) in South sector of the region.
3. For the first time over 12 years of our Center exists the government of Ukraine allocated us some money to support research activity relevant to the RSG project objectives: search of the most valuable natural areas worthy high protection category.

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

In respect of the Chernobyl exclusion zone the “local communities” means only people who work in local industrial, monitoring and service organisations. We still did not have any relations with them. The RSG-project goals and objectives were only discussed with representatives of local authorities, when we applied of a permit to work in region, and we got understanding and generic support in this concern. Also, we hope that the results of the project and the studies carried out in framework of the governmental project will be useful for making decision of establishment of protected areas of high category in the region. We also are going to place information of the project results at two profile web-sites (<http://kazhan.org.ua>, Ukrainian Centre for Bat Protection, and <http://chornobyl.in.ua>).

5. Are there any plans to continue this work?

Yes, both the bats studies and nature conservation activity will be continued. Chernobyl zone is a huge area, and we need additional expeditions to investigate new locations, and to get more information about those areas where we had worked. Also, continuation of the bats individual marking will provide very valuable information about their movement, territorial fidelity, intra-population relationships, and relative abundance, we also hope for long-distance recapturing of the Chernobyl bats.

We also are going to continue the field collection of data about fauna and flora of the most valuable areas. Together with official data of forest composition, soil, relief and radiological data it will lay in the base of justification of necessity to increase protection status of these areas and to establish corresponding environmental organization. It will be continued in framework of the governmental project.

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

Though I know the exclusion zone rather well our activity during the project allowed “to discover” nature and to assess its value for number new locations. Now I understand more about natural history of the region than before. It provides good grounds and tips what to do further, what is the most important and demands urgent actions. The RSG project’s results are very useful for understanding why the bats are abundant in one location and less in others, why different species prefer different habitats. In the next steps on the way of conservation activity we will use data about the bat’s population structure and generic state to assess importance of the habitats in their life, and to justify necessity of protection of the lands with certain characteristics.

In our radio-ecological studies we have new opportunities to revise approaches to the bats research and assessment of the data taking into account demands of the bats to abundance of appropriate roosts, fidelity to the territory, spatial movement, obtained in the RSG project.

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

It was done during all period, almost gradually. In July 2010 we undertook a field expedition. In August 2010 I prepared a report and presented it at the Congress in Prague (Czech Republic) and purchased the bat-detector and software for the bat sounds. In September-November 2010 I summarised preliminary data and trained to take records of the bats’ sounds and to analyze it.

During December 2010 – April 2011 we purchased chiropterological rings, a solar panel (and other relevant equipment), boroscope, and discussed plans for the next season. During this period, we prepared an application to Ministry of Emergency of Ukraine to get support for the relevant research activity in Chernobyl. In May 2011, we undertook the second filed expedition. In June, I looked for new locations for the next expedition, took records of the bats vocalisation in several sites, and began discussions with potential partners in respect of possible collaboration. Since May-June we began also prepare an application to the Global Ecological fund to support our conservation and environmental activity in Chernobyl. In July 2011, we carried out the third field expedition. In July-August we also had meetings with potential partners from USA and Germany which were interested in joint studies of the bats. In August-September I summarised the data obtained in the RSG project and prepared the final report. Thus, the project performance filled whole anticipated length, however it was not enough to perform all desired plans.

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
Equipment	1,578.42	2,028.74	-450.32	We purchased some additional equipment (solar panel etc., bats rings) taking into account reduction of the other expenses
Consumables & Service	1,082.56	881.80	200.76	Expenses were cut because of reduction of the field work
Field and travel	3,320.58	2,934.13	386.45	Expenses were cut because of reduction of the field work
TOTAL	5,981.55	5,844.67	136.88	Additional reduction of the expenses caused by exchange rate and fee taking in the very beginning at the bank transaction to my account

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

The most important – to finish the begun in the RSG project. We have to add additional data about the studied locations' features (i.e. official information of forest composition) and to prepare like a preliminary passport of the prospective protected areas, to get what to submit in the governmental departments responsible for the nature conservation and protection. Also, we are going to prepare information about the study results for the websites. We are going also to write one-two articles of the study results. Regardless possible support of our studies and environmental activity by Ministries of Ukraine we are going to prepare new application for the grants of international foundations including RSG.

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?

I mentioned it only once: in the oral report at the 15th International Bat Research Congress (August 2010, Prague, Czech Republic). It will be done at placing the project materials at two web-sites (<http://kazhan.org.ua>, <http://chernobyl.in.ua>), and in the next publications. During the project we were twice asked by volunteers from Great Britain and Poland about possibility to participate in the

bat research in Chernobyl. As I understand in both cases those people found information about our project at the RSG website.

11. Any other comments?

On behalf of all colleagues which took part in the RSG project and personally I express my heart gratitude Rufford Small Grant Foundation for the support and confidence addressed to us. We greatly appreciate your noble activity detailed actual expenses of the project are below:

Item	Units	N	Cost per unit		Total expenses		Rate UAH/USD	Total expenses	
			UAH	USD	UAH	USD		USD	GBP
Fee for the bank service (2% of total amount,)	total	1	1391.75		1391.75		0.1265	176.10	116.89
Headlight Petzl Tikka 2	Units	1	287.00		287.00		0.1265	36.31	24.10
Headlight Petzl Tikka Plus 2	Units	1	450.00		450.00		0.1254	56.43	37.46
Bat ultrasonic detector Pettersson D240x + Software BatSound v.4	Units	1		1420.00		1420.00		1420.00	942.58
Solar panel Sunling 25W + shipping	Units	1		324.39		324.39		324.39	215.33
Universal battery pack Tekkeon myPower All Plus 3450	Units	1		139.95		139.95		139.95	92.90
Sunling 7Amp Solar Panel Charge Controller	Units	1		43.95		43.95		43.95	29.17
Tenergy BC1HU fast smart battery charger	Units	1		39.95		39.95		39.95	26.52
Boroscope DCS400 + shipping	Units	1		313.37		313.37		313.37	208.01
Chiropterological rings (Aranea, Poland), 2500 rings	total	1		600.00		600.00		600.00	398.27
Rechargeable batteries: AA	Units	8	26.00		208.00		0.1253	26.06	17.30
Rechargeable batteries: AAA	Units	8	32.00		256.00		0.1253	32.08	21.29
Rechargeable batteries: 9V	Units	2	95.00		190.00		0.1253	23.81	15.80
Consumables (miscellaneous)	total	1	964.20		964.20		0.1254	120.91	80.26
Travel expenses (Jul 2010)	person	4	200.00		800.00		0.1267	101.36	67.28
Travel expenses (May 2011)	person	4	200.00		800.00		0.1254	100.32	66.59
Travel expenses (Jul 2011)	person	4	255.00		1020.00		0.1255	128.01	84.97
Daily expenses during field work (Jul 2010) (19 d x 5 persons)	person-day	95	130.00		12350.00		0.1267	1564.75	1038.66
Daily expenses during field work (May 2011) (11 d x 5 persons)	person-day	55	135.00		7425.00		0.1254	931.10	618.05
Daily expenses during field work (Jul 2011) (14 d x 5 persons)	person-day	70	135.00		9450.00		0.1255	1185.98	787.24
Daily expenses during scout & bat detection trips	person-day	10	126.00		1260.00		0.1260	158.76	105.38
Fuel	l	75.15	6.95		522.30		0.1266	66.12	43.89
Fuel	l	51.17	6.86		351.10		0.1267	44.48	29.53
Fuel	l	79.57	6.95		553.00		0.1267	70.07	46.51
Fuel	l	40.00	9.80		392.00		0.1253	49.12	32.60
Fuel	l	60.00	9.90		594.00		0.1253	74.43	49.40
Fuel	l	65.05	9.75		634.24		0.1253	79.47	52.75
Fuel	l	25.13	9.75		245.02		0.1255	30.75	20.41

Fuel	l	42.10	9.50		399.95		0.1255	50.19	33.32
Fuel	l	22.30	9.70		216.31		0.1255	27.15	18.02
Rent of a car (instead the regular one broken in Jul 2011, 14 d)	total	1.00	2300.00		2300.00		0.1255	288.65	191.60
Repair of the car	total	1.00	2000.00		2000.00		0.1255	251.00	166.61
Travel expenses during 15th IBRC, Aug 2010 (Prague, Czech Republic)	total	1.00		250.00		250.00		250.00	165.95
TOTAL								8805.00	5844.67

Note: N – total amount of units; UAH – Ukrainian Hryvnia; USD – dollar of USD; GBP – British pound; “Rate UAH/ USD” – in day when the expenses took place.