

The Rufford Foundation

Final Report

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Igor Balashov
Project title	Conservation of Terrestrial Molluscs in Ukrainian Dry Grasslands
RSG reference	20036-2
Reporting period	July 2016 – July 2017
Amount of grant	£5000
Your email address	igor_balashov@ukr.net
Date of this report	July 2017

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
<p>Collecting data that will be enough to solve problem with taxonomy of <i>Helicopsis</i> genus, which will allow to estimate their conservation statuses</p>				<p>During expeditions in southern, eastern and western Ukraine, together with materials collected during expeditions of my first RSG, enough materials was collected to achieve that goal. I have also received DAAD scholarship for 3-month visit in Germany, right after finishing my current RSG, so I can directly continue this work in the lab. I have sampled all different forms and nominal taxa from Ukraine (including one that was considered to be extinct species in IUCN Red List), has found several new notable locations. But to make any conclusions regarding conservation importance of this data the study on DNA taxonomy should be finished. Afterwards it will give possibility to estimate conservation statuses.</p>
<p>Search of unknown populations of the threatened snail species, especially in unprotected areas</p>				<p>During expeditions in central Ukraine we have found a lot of previously unknown locations of the threatened steppe relic snails: five of <i>Granaria frumentum</i>, 13 of <i>Pupilla bigranta</i> and 12 of <i>Mediterranea inopinata</i> (for all of these three species it is more than was previously known in Ukraine). On one of the sites in central Ukraine we have also found population of regionally threatened <i>Morlina glabra</i>, a first for Kiev region. We have also revealed previously unknown locations of <i>Vertigo angustior</i>, <i>Truncatellina costulata</i> and several less notable species. With description of all this data a paper in English was submitted to</p>

				<p>Vestnik Zoologi (listed in Scopus): "Terrestrial molluscs in the dry grasslands of the Dnieper Upland (Central Ukraine): populations of <i>Granaria frumentum</i> in 250 km from its known range".</p> <p>During expedition in the Crimean Mountains I have also found a previously unknown population of endangered endemic snail <i>Ramusculus subulatus</i> and several of less notable species.</p>
Propositions of creation of new protected areas in important revealed sites				<p>On the basis of carried expeditions we have submitted propositions of creation of 11 new protected areas of dry grasslands in central Ukraine. These areas are all along three rivers in the basin of Dnieper: Ros', Girskyi Tikych and Tiasmyn. The plots of rock outcrops with natural vegetation and steppes are remain preserved on the slopes of valleys of these three rivers. To support this issue we has also published two papers in the materials of local Ukrainian conferences on nature conservation to promote creation of this protected areas.</p>
Work on the red lists				<p>Starting from 2017, I was included into the Mollusc Specialist Group of IUCN Species Survival Commission that works on molluscs in IUCN Red List and related projects, where I'm an only representative of Ukraine and there are also no members from adjacent Moldova, Belarus and European part of Russia. Just before it I have published a paper "On the Crimean endemic terrestrial molluscs in the IUCN Red List" in journal of this group. Now I have already started working on the correcting and reviewing accounts of the species that occur in Eastern Europe.</p> <p>At the same time on the level of Ukraine I'm officially working on the next edition of Red Book of Ukraine,</p>

				<p>in the Institute of Zoology even an individual research theme was opened for me on 2017-2018 titled "Terrestrial molluscs in Red Book of Ukraine: state of populations and question of adding new species". The next edition of Red Book of Ukraine should be officially, according to the law of Ukraine, published in 2019, but judging from the previous cases there are chances that its governmental funding could be delayed, so I can't guarantee that it will be published in 2019.</p>
Book, brochures and poster				<p>The second edition of one brochure from my first RSG was published ("Why land snails should be protected?" in Ukrainian), new brochure and poster with one concept entitled "Why steppe snails should be protected?" (In Ukrainian) were published.</p> <p>Planned book "Terrestrial molluscs of the Crimea" is finished and will be published soon, costs on it are stored and will be exactly filled in number of published exemplars, and I will additionally report it, explanations below.</p>
Involving of the students				<p>11 students/biologists of Kiev University were involved in the expeditions helping searching the snails. I think I have achieved some educational environmental outcome on further specialist that will be likely working in areas related to nature conservation in Ukraine.</p> <p>As continuation of my first RSG, Zoia Shvydka who was recruited as a student during expedition in Carpathians has started her PhD work on haired land snails and was also involved in this project. Veronica Skvortsova, who was recruited during the same expedition as a school student, is now a student of Department of</p>

				Ecology in Kiev University and works on land snails under supervision of Dr D. Lukashov and me (she was not much involved in this project due to circumstances, but hopefully will be involved in the future ones)
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

Book is prepared, but for better recognition, including gaining institutional ISBN, it should be approved by council of my institution, which requires several procedures and some time, which I have failed to proceed before my visit in Germany, therefore book will be published only after I will return in the beginning of 2018. Costs are stored, number of the published exemplars will be exactly filled in it.

Unfortunately two expeditions in western Ukraine revealed no populations of *Helicopsis instabilis* in locations that were known from old literature, perhaps they decline there. However some useful data on other species of molluscs was collected at the same time. During major expedition in the Crimean Mountains, one of the secondary goals was to find *Balea perversa* in location where one empty shell was reported to be found, but long searching gives no results. I was also planning one expedition on Transcarpathian lowland in search of *Zebrina detrita*, but there is no precise locations known and in the end, already knowing that I will go to Germany to continue work on *Helicopsis* in the lab, I have decided that it would be better to use costs for collecting as much material as possible to finalize *Helicopsis* study, too often during previous attempts to find such old locations we did not succeed.

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

1. We have collected extensive amount of data that will enough to solve problem with *Helicopsis* genus, where some species are supposed to be threatened but their taxonomical statuses are not clear (it will be solved after molecular studies that I will do in Germany in last 3 months of 2017).

2. We have found many previously unknown locations of rare steppe relics in central Ukraine and will propose conservation of their habitats: *Granaria frumentum*, *Pupilla bigranata* and *Mediterranea inopinata*.

3. On the basis of data received during expeditions funded by Rufford we have started necessary procedures to create 11 new protected areas in central Ukraine.

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

We were giving brochures and explanations to the locals at occasions. Stuff of several protected areas was involved and assisted us if we were around. But to be true there is no major contribution in this regard. I'm hoping that I have achieved

some environmental educational contribution by involving students-biologist of Kiev University, which is leading in Ukraine, therefore these students will likely to be working in the fields related to nature conservation in Ukraine. I'm hoping to provide more attention to contacts with local communities after some of our proposed protected areas will be created during my further RSG projects if I will receive them.

5. Are there any plans to continue this work?

There are lots of, see below paragraph 9 about further steps.

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

Scientific papers in peer reviewed journals, a book, brochures and poster, Facebook.

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

Right after receiving the costs, in August and September, four major expeditions in central Ukraine were carried. Somewhere between them I have published second edition of my brochure and have buy some staff for collecting of the samples. Then I have 12 expeditions, mostly with few members, from late March to June. Almost entire April and May I was in the field (best season for searching *Helicopsis* snails). Last major expedition was in the last week of July, involving nine students/biologists. Costs on other publications were used after this. So it was overdue if to consider that my project was ending in July (although I received costs in August).

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
Field expenses (fare, food, gas, involving of local people, etc.)	2670	2973	+303	We were not using hotels, only tents, but several expeditions were with car, so we have spent a lot on the fuel. In general the 6 large expeditions with 5-10 members and 11 smaller ones with 2-4 members were executed (up to 12 days each).
Stuff for collecting of the samples (tubes, boxes,	450	212	-238	I only bought some tubes, packets and boxes. I was

ethanol, etc.)				planning to buy more different containers and ethanol, but I was starting to overspent on first expeditions, and some materials were remaining from my first RSG, so I saved some costs from this position for other items, first of all on the field
Publishing of the brochure and poster on the conservation of molluscs of Ukrainian dry grasslands (in Ukrainian, 1000 of each)	350	396	+46	
Publishing of brochure on the general problems of conservation of Ukrainian dry grasslands (in Ukrainian, 1000 exemplars)	165	0	-165	I have overspent too much on expeditions. I decide that more important is to save enough costs for a book and that brochure and poster on the theme of project are more important than this one.
Additional edition of brochure of my first Rufford project "Why land snails should be protected?" (in Ukrainian, 1000)	165	169	+4	Exchange rate was different previous time
Publishing of an illustrated book "Terrestrial molluscs of Crimea" (in Russian with English summary and preface, 300+ exemplars)	1200	1200	0	Book is prepared, but not published yet due to necessary formalities required to be approved for better recognition in Ukraine, costs are saved, number of the published exemplars will be exactly filled to 1200 GBP (~270-340 exemplars expected)
Bank's fee (1%)	0	50	+50	
Total	5000	5000	0	

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

The next step will be visiting department of Prof Hausdorf in Hamburg University (Germany) to carry out molecular studies of *Helicopsis* snails collected during my two Rufford projects and to reveal their phylogenetic relations, which will allow estimation of their conservation statuses. After returning in Ukraine I'm planning to start intensive work on the land snails related to fens in Ukraine, first of all species of European importance (*Vertigo moulinsiana*, *V. geyeri*, *V. angustior*). This theme was

part of my first Rufford project, during it I have found new important locations of *V. moulinsiana*, but did not find *V. geyeri* in locations where it was collected 100 years ago. It turns out that search of these species requires much more extensive work, which I'm planning next year to reveal unknown populations of these *Vertigo* species in the habitats that fits their requirements. I'm hoping to receive third Rufford grant for this project, which will be titled "Conservation of terrestrial molluscs in Ukrainian fens", in the first half of 2018.

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

Yes, in two brochures, poster and will use it on the book that will be published in near time, on the cover from both sides and inside on the title page.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Main team members that were involved in the several expeditions each:

- Igor Balashov - planning, field working, proceeding, writing, etc.
- Olexiy Vasyliuk, researcher at I.I. Schmalhausen Institute of Zoology, vice-head of National Ecological Centre of Ukraine (NGO) and employee in "Environment People Law" (NGO) - main specialist on general problems of nature conservation, contacts with NGOs, with stuff of protected areas and with locals, field work on snails, writing accounts and promoting creation of the new protected areas.
- Dariia Shyriaieva, student-botanist in Kiev State University – our main field botanist, botanical descriptions of studied sites, field work on the snails, botanical parts in the accounts with propositions on new protected areas, involving other students.
- Zoia Shvydka, PhD-student in Kiev State University (works on land snails) – field work on the snails, involving the students.
- Olexiy Marushchak, student-zoologist in Kiev State University – field work on the snails, involving other students.
- Olexandra Oskyrko, student-zoologist in Kiev State University – field work on the snails, involving other students.

In addition, eight more students-biologists of Kiev State University were involved only in one or two expeditions during this project for the fieldwork (searching for snails): Galyna Stetsun, Svitozar Davydenko, Vitalina Voytenko, Anastasia Dubyna, Olena Domans'ka, Tetiana Gusak, Yaroslava Buhonska, and Leonid Shevchenko. In one of the expeditions for the same purpose Julia Shcherbakova was involved, who not a biologist, but an environmental activist and wildlife photographer. In expeditions in Central Ukraine Dr Vasyl Kostyushyn, a head of Department of animal monitoring and conservation of I.I. Schmalhausen Institute of Zoology, was involved with his car.

During the major expedition in the Crimea Dr Sergey Leonov from Taurida University (Simferopol) with his car has helped with mobility and snails searching.

12. Any other comments?

It was very inspiring to continue my studies on conservation of land snails on the new level that I have achieved during my first RSG. It gives me many new opportunities, including my current project on *Helicopsis* in Germany that directly continues current RSG, work on IUCN Red List as member of IUCN Species Survival Commission, as well as on national Red Book of Ukraine.

