

Final Project Evaluation Report

Your Details	
Full Name	Vasylyna Stakh
Project Title	Mortality of amphibians on the roads of Transcarpathian province (Western Ukraine)
Application ID	26183-2
Grant Amount	3,896
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1. 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
Fieldwork				This part of the project work is done completely. We have collected mortality data along all the seasons (spring, summer, autumn) on all the roads and as a result, we checked all the possible seasonal migrations of amphibians. We have evaluated traffic intensity in every study site. All the mortality data, habitat and road characteristics plus photo documentation are available as databases both in paper and digital format.
Estimation of population characteristics				The estimation of approximate amphibian population numbers and their status was done. For every population, we calculate the threshold of road mortality which was based on the obtained field data.
Scientific data analysis				The statistical analysis of amphibian road mortality has been done. We pointed out the most dangerous road sections for amphibians. A number of scientific publications on the project results have been published (four conference abstracts). We will prepare a scientific article based on the project data. A scientific article on the results of our previous RF project was published in Vestnik Zoologii this year (https://doi.org/10.2478/vzoo-2019-0013).
Applied project results				Amphibian fences were installed in spring and autumn 2019 for the first time in Transcarpathian province (Uzhanskyi National Nature Park) to monitor the migration and save the amphibians. Amphibian fences were repeatedly installed in Lviv province as well (Roztochia Nature Reserve). We are going to install one more frog fence section in Transcarpathia (Synevyr National Nature Park) in spring 2020 as the existing weather conditions for the planned time in 2019 were not suitable for that while all the necessary materials had been purchased for that. All the mentioned fences are monitored by nature park and reserve staff, volunteers and local school children.
Recommen-				Due to political processes in Ukraine (ordinary

ndations				President and extraordinary Parliament elections in 2019) we haven't got any progress in the negotiations with the government and road authorities about the implementation of our "Attention, frog is crossing!" road sign proposal into the practice in Ukraine as all the key persons involved into the process from the official side were substituted.
Eco-education				A number of thematic lectures for teachers, school children (Zabrid) and students (Ivan Franko National University of Lviv and Karazin Kharkiv National University) were organised. More specified and advanced lectures were also made for Uzhanskyi and Synevyr National Nature Park staff. Amphibian road mortality workshop in the frame of the annual Biological conference of the University of Lviv was held. Field work on an amphibian rescue on the fences involving school children, their teachers, and numerous volunteers has been organized this year so far.
Brochure and field key				The brochure from the previous RF project was republished as only 10% of the first edition was left. It was successfully disseminated among the scientific and nature conservative community in Ukraine again. This is announced also on the project Facebook site which is alive and supported by us all the time. We have prepared a bilingual (Ukrainian and English) field key for the identification of amphibians killed on the roads. Its 300 copies are in press now.
Maps				Digital maps on different characteristics of amphibian mortality on the roads of Lviv and Transcarpathian provinces have been made on the base of the QGIS programme.
Banners, video materials, internet activity and sharing information				We printed out and presented three thematic banners to our partners (Uzhansky National Nature Park, Synevyr National Nature Park, and Zabrid secondary school). Bilingual internet-blog on the project topic was created (frogs-en.blogspot.com). Video material of our activity was shared on the internet.

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

Almost all of the declared tasks were realised except installation of frog fences in Synevyr NNP. On the other hand, we did realise even more tasks to some extent than it was planned as some of the ideas appeared during the project realisation after the

application was adopted. The main difficulties for us as for the project participants were concerned with the President and Parliament elections 2019 in Ukraine and instability of national currency (especially its reinforcement in the second half of 2019 for almost 15%), but the same price level for goods and services, etc. And some more difficulties we faced and couldn't predict there were inappropriate weather conditions in the mountains for the moment of frog fence installation (huge snowfall and temperature decrease) and breaking one of our cars at the beginning of the season (period of amphibian spring migrations).

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

- We collected the full set of scientific field data for the first time on the territory of Transcarpathian province and prepared the appropriate database and maps.
- We have written, designed, prepared for publication and publishing the first in its genre field guide of crushed amphibians "A field key for the identification of amphibians killed on the roads".
- We are proud of the involvement of new partners from Transcarpathia into this kind of important work and their effectiveness during the realisation of the project tasks concerning frog fences.

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

The lectures for school children and national nature parks staff focused their attention on the problem. They got project brochure and self-designed amphibian cups as the prizes for the amphibia quiz. They can use the brochure as the topic for their own ecological afterschool classes and nature educative activities. Both school and national nature parks have got informative banners on the given problem to share the idea within the local communities. National nature park staff together with school children monitor frog fences every day. This kind of activity is very important for both of them. The project topic and the events are actively discussed on Facebook. Moreover, not only the local community but people from all over Ukraine join the discussion and share their opinion and information.

5. Are there any plans to continue this work?

If we would have further financing we were going to continue the work in a similar way in Volyn province (to the north from Lviv province). Besides, we actively continue the research on the model road section near Lviv, where two doctoral and two master studies have been held. In 2020, we plan to monitor amphibian mortality on the model road section by the same research scheme as previous years and, of course, to support installed frog fences as long as possible. We will also update our project Facebook site and Internet blog and try to keep them active and alive.

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

We permanently show and share any type of results of our work on Facebook. We prepare publications and scientific articles on the project data, present them on different conferences, workshops, public lectures, also give interviews on the topic for

various media (e.g. <https://galnet.fm/perenosyat-zhab-cherez-dorogu-yak-lvivski-biology-ryatuyut-zemnovodnyh-vid-smerti-pid-kolesamy-aktivok/#>).

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

The project was planned and lasted for one year (2019) with the half-year delay agreed with the RF. It was enough time to ascertain the key reactions and the course of the main phases of the amphibian season cycle (from spring to autumn), especially when the work starts in spring.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

During the realization of project tasks, the exchange rate of GBP and EURO to the national currency changed, so we can't put the exact value here. The calculations are made taking into account the rate for the day of purchase.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Transport	1542	1661	+119	We spent more because we made some extra field and lecture trips. The unexpected car reparation is included here, so we had to rent a car and its costs are included here too.
Food/Bed	651	680	+29	Usually, we made our fieldwork trips by two cars in a time to speed up the research process. Additionally, we took a student and/or Nature Park staff representative to teach them how to collect and identify the material. Therefore we spent a bit more on food (the bed was paid by personal costs). But on the other hand, we have done more sites and covered larger territory than we planned before.
Brochure	745	745		The brochure from the previous RF project was re-published (1050 copies for €398/£347). About £10 were spent on the printing of informative banners. The rest of the money (€445/£388) we spent on the

				editing, design, lay-out and publishing of the field key of crushed amphibians.
Communication costs	26	26		The amount was completely used for the communication between working groups and project participants during the fieldwork and coordination.
Power bank	59	82	+23	We bought two power banks Xiaomi Mi Power Bank 2C 20000 mAh (price for one is €45.3/£41) for field work purposes.
Bucket	66	52	-14	72 plastic buckets (£0,72 each) we bought cheaper on the internet.
Workshop on amphibian road mortality during one of the conferences in Lviv University	61		-61	As far as we managed to organize our workshop during one of the University conferences in the format of the round table included in the conference program with the further thematic field excursion sponsored by the University, we saved the full amount of money.
Conference fee	88	75	-13	We took part in one extra conference which wasn't planned in the application (3 in total). But due to the reduction of their participants (1 pers per each conference), we managed to reduce the actual expenditures and spent less amount than planned.
Wooden stick	101	34	-67	110 wooden sticks were bought for frog fences installation in Uzhanskyi National Nature Park (£34). The rest 220 sticks were prepared by Synevyr National Nature Park themselves for free as we are going to install frog fences in spring 2020 on their territory. So, we have saved £67 so far.
Amphibian fence film	127	122	-5	All the amount was completely used for the purchasing of 600 m of amphibian fence film.
10% contingency	430	430		The reserved amount was fully used to cover the extra costs of transportation and car reparation, food/bed, and power banks' purchase. So in total, we overuse £11.
SUBTOTAL:	3896	3907	+11	
Office equipment (notebook, printer)	454	454		These costs were provided by Ivan Franko National University of Lviv and

Office expenditures	376	376		by Institute of Ecology of the Carpathians of NAS of Ukraine.
TOTAL:	4726	4737	+11	

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

Monitoring of the model road section, expansion of research territory, dissemination of our knowledge, practical realization of our project recommendations, further eco-educative activity.

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

Yes, the logo was used in the brochure and a field key for the identification of amphibians killed on the roads, on the informative banners and amphibia cups we produced, and it was presented during the public lectures and conference presentations as well.

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

Vasylyna Stakh – coordination, fieldwork, maps and data processing, and analysis, field key preparation, managing of lecture trips, Facebook and blog support.

Ostap Reshetylo – coordination, managing and communication, fieldwork, field key preparation, data processing and analysis, lecture, media and eco-educative activities, scientific articles preparation, conference participation.

Ihor Dykyy – fieldwork.

Bohdan Andriyishyn – fieldwork, lecture, and eco-educative activity, field key preparation, conference participation.

Angelina-Anastasia Osiyeva – fieldwork and conference participation.

One more student and Uzhanskyi National Nature Park staff representative not indicated in the application were involved in the active project work:

Balandiukh Natalia – fieldwork.

Koval Nelia – fieldwork.

12. Any other comments?

We are grateful to the RF for the support of our nature conservative attempts and the great possibility to realise our scientific and eco-educative ideas.