

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	Iryna Yatsiuk
Project title	Conservation of Rare Fungus <i>Pleurotus calyptratus</i> in Aspen Stands of Ukrainian Forest-Steppe
RSG reference	http://www.rufford.org/projects/iryna_yatsiuk
Reporting period	July 2016-July 2017
Amount of grant	£1691
Your email address	yatsuk.iryana@gmail.com
Date of this report	7th August 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
1. Exploring of <i>Pleurotus calyptratus</i> ecological strategy and lifecycle				Now we have not enough results to draw conclusions about the biology of this species. We need more time to analyze a bigger sample.
2. Preparing the documentation for the Ukrainian Red Data Book and a paper for peer-reviewed journal				The article 'The conservational value of old-growth aspen forests in Eastern Ukraine', planned to be submitted in the Ukrainian peer-reviewed journal 'Studia biologica', is in process of improvement and will be submitted at the end of the year.
3. Preparing the 'Guidelines for Conservation of <i>Pleurotus calyptratus</i> and its habitats' for Ukrainian Forest Agency and report for NNPG.				Our results and recommendations are transferred to the Head of Scientific Department of NNPG and are prepared for Forest Agency
3. Creating booklets about conservation of aspen forest stands and associated threatened species				We have designed the booklet «Why does the living forest need a dead wood? » Booklets were transferred to National Park 'Slobozhansky' and National Park 'Gomilshansky lisy', also shared to eco-activists and NGOs. We also designed and printed stickers with deadwood inhabitants. Please, see pdf files attached.
4. Education and public involvement				We organised the educational public event – Lectorium and Interactive Exposition 'Let me tell you about the forest'. To see some event photos please follow the link http://mycology.univer.kharkov.ua/ya-rozpovim-tobi-pro-lis-interaktyvna-vystavka-ta-lektorij-vid-profesijnyh-biologiv/

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

Sampling protocols and PCR methods were more time and effort consuming than expected. Accumulators of the screwdriver quickly run down in the forest and need time for charging. PCR method disc needs time for approbation and optimisation.

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

1) Improvement of our knowledge about biology of *Pleurotus calyptratus*. Optimisation and approbation of PCR methodic in detecting *Pleurotus calyptratus* DNA in the aspen wood.

2) Development of the recommendations to exclude old-growth aspen forests from cutting plans.

3) Drawing of public attention to the deadwood conservation.

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

We didn't work with local communities (small villages near the National Park 'Gomilshnsky lisy') directly, but it should be understood that their welfare in the long-term perspective depends on the existence of the forest near that villages. Many of them work in forest management and the touristic sector. Therefore forest conservation means benefits for them.

5. Are there any plans to continue this work?

Yes

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

We are sharing our results via scientific papers, conferences presentations, distribution of educational materials, and public events. See updates 2017.

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

July 2016-August 2017. Project activities will continue up to the end of 2017. It may take a longer time for the article in a peer-reviewed journal to be published.

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
Food	340	420	-80	Additional 4 expeditions, compensated from other items
Accommodation	110	60	+60	Cheaper accommodation in the National Park 'Gomilshansky lisy'. Remaining costs spent for other items
Fuel/public transport	22	45	-23	Additional 4 expeditions, compensated from other items
Medicine (general field medicine box)	29	25	+4	
Tab or communicator with Android OS	273	296	-23	Compensated from other items
Screw driver	78	132	-54	Compensated from other items
Tape measure	28	0	+28	Purchased at own expense. Costs spent for other items.
Other field equipment (tents, headlamps, batteries whenever necessary)	100	0	+100	Purchased at own expense. Costs spent for other items.
Reagents and single-use supplies for DNA extraction, PCR, RFLP (CTAB, EDTA, nucleotides, single-use tips, eppendorf tubes, gel, etc.)	150	179	-29	Compensated from other items, some reagents purchased in advance for further analysis
Primers synthesis	40	62	-22	Reverse primer was ordered 2 times during method optimization, compensated from other items
Petri plates	7	10	-3	
HAE III enzyme for RFLP	45		+45	Not needed, method changed. Costs spent for other items
Preparing and publishing of posters	82	60	+12	We decided to print stickers instead of posters. Remaining costs spent for other items
Preparing and publishing of prospects	137	100	+37	Remaining costs spent for other items

Organization of Interactive exposition and Lectorium 'Let me tell you about the forest' (printing photos for exposition, banners, purchasing cardboard mounts, stationeries, lamps, food for coordinators and collaborators, transport)	0	210	-210	Compensated from other items
Shipping and unpredictable expenses	50	0	+50	No shipping, spent for other items
Publishing an open-access paper	200	0	+200	Postponed
Total	1691	1599	+92	Left for publishing a peer-reviewed paper

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

First, we need some more time to finish already planned work. We need to make a bigger sample for molecular analysis and to write a peer reviewed paper in the English language journal. After that we plan to expand the scale of our project in several directions. We are going to establish monitoring of additional three species of fungi.

The other direction is the monitoring of aspen forests dynamics in collaboration with Ukrainian conservation GIS-community, in particular using unmanned aircraft vehicles.

We also plan to repeat the event 'Let me tell you about the forest' because it appeared to be successful and we feel public interest to this topic.

Also we discovered the deficit of educational materials concerning the importance of deadwood. Our brochure 'Why does the living forest need a dead wood?' was immediately requested by different nature reserves, national parks, NGOs and individual conservationists from all over Ukraine and even from other countries. So we plan to work further in the field of education and popularisation.

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. We used The Rufford Foundation logo on brochures, stickers and banners, in conferences and lectorium presentations and an appropriate section in scientific paper. We also used it in our educational public event, printed on lapel pins and in presentations.

<http://mycology.univer.kharkov.ua/ya-rozpovim-tobi-pro-lis-interaktyvna-vystavka-ta-lektorij-vid-profesijnyh-biologiv/>

<https://www.facebook.com/itsector.kh/posts/1538799306138937>

<https://www.prostir.ua/event/lektorij-ya-rozpovim-tobi-pro-lis-harkiv/>

<http://www.std42.com/yak-prybyraty-lisy-ta-nikogo-ne-vbyty/>

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

Iryna Yatsiuk – general coordination of project activities, volunteers and collaborators, design of laboratory experiments, paper and recommendations writing, report writing, organization of educational event, coordination of developing and printing printed materials

Oleh Prylutskyi (the author of overall project idea), organization of field work, data analysis, working with GIS and preparing of cartographic materials, paper and recommendations writing, organization of educational event

Anton Savchenko – sequencing, international collaboration

Maryna Kit – laboratory work, methodic optimization, field work. In 2017 she received her MSc degree (Diploma with Honours), with a thesis 'Ecological characterization of rare fungus *Pleurotus calyptratus*'

12. Any other comments?

We are really grateful to The Rufford Foundation for the opportunity to realise our initiative.