

Final Evaluation Report

Your Details	
Full Name	Jovana Pantović
Project Title	Study of bryophyte diversity within selected areas in northernmost part of Serbia
Application ID	25015-1
Grant Amount	4981£
Email Address	jovanap@bio.bg.ac.rs
Date of this Report	02.11.2021.

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
Floristic study of the selected areas.				We had to change the timescale of the planned field trips, because of the country's lockdown and movement restrictions during the spring/early summer of 2020. Hence the field work was finished in 2021.
Mapping rare species important for conservation.				Several interesting and important species were found in the investigated localities.
Education on the peculiarities and importance on conservation of the selected localities, as well as its bryophyte flora, through presentations and workshops.				Only one in person presentation with school children was held. Due to the COVID-19 pandemic, we decided to make an educational video presentation that will be posted online and distributed to schools, institutions, NGOs, etc.

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

At the beginning of the Spring field season in March 2020 a COVID-19 pandemic started. Due to the lockdown and other country restrictions during the Spring and rest of 2020, we couldn't realise field work as planned. We had to wait for the next Spring season in order to be able to collect important ephemeral species that occur shortly only in the Springtime. Because of that, we finished our Spring and early Summer field work and specimen collection in 2021, hence changed and prolonged the dynamic of the project for another year.

The educational part of the project started as planned, with a workshop held in a school. However, due to the ongoing pandemic and safety measures we decided to change realisation of this task into creating an educational video that will be posted online and distributed to the schoolchildren and students. One of the important advantages of this change is that that way we could reach a larger audience. Originally, we had planned to prepare a brochure and to distribute hard copies at the lectures and workshops. Instead, we decided to leave hard copies of the brochures to be available at the site of protected area (visitor centre), while the online version will be distributed online together with the video.

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

1. One of the most important outcomes of this project is detailed bryofloristic study of Tavankutska pešćara, Subotička pešćara and Selevenjske pustare. We collected all bryophyte species found in these specific areas comprised of very important and fragile habitat types. The bryophyte flora of selected localities was completely unknown up today.
2. Contribution to the knowledge of the bryophytes of Bačka region and Vojvodina province. Region of Bačka is the least bryologically explored region of the country, with only 69 bryophyte records previously known. With this exploration, we collected more than 500 specimens, that will help to better understand its ecology and diversity.
3. Mapping nationally and/or regionally rare species, e.g., European red listed species *Enthostodon hungaricus*, including several significant first records of the species for Vojvodina province and/or Bačka region. This will allow better monitoring and protection of important species, as well as management in the protected areas.

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

Elementary school children were educated on hidden world of mosses that inhabits peculiar habitats of northern Serbia. During our work, we presented and promoted our activities on social networks (via personal accounts of the team members), such as field work, interesting findings and habitats. In educational tasks of the project, special focus was given to the importance of all organisms inhabiting the ecosystem, although they may not seem attractive or significant at first glance. We gave instructions for identification of some of the common as well as rare species from the explored localities, and importance of its conservation. Members of the State Enterprise Palić-Ludaš, that manages protected localities Selvenjske pustare and Subotička pešćara, were involved from the beginning of the project. They actively helped us in the field work, with the organisation and logistics. Obtained results of the study are available to them which they can use in the future monitoring and conservation management of the protected areas.

5. Are there any plans to continue this work?

Further research would be focused on important species findings. Selected species should be mapped more precisely, its ecological preferences investigated, and populations should be monitored in the future. In case it is necessary, active conservation measures should be done, e.g., in vitro propagation and population strengthening.

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

One lecture was held for elementary school children. Afterwards, due to the global pandemic and epidemiological reasons, summary of the obtained results and

achievements of the project was prepared in a form of a short brochure that has been posted online, while hard copies will be available at the visitor centre of State Enterprise "Palić-Ludaš". More detailed scientifically popular and educational video presentation was prepared and shared online via YouTube. Prepared material has been presented and posted on social networks. It is planned to continue sharing of the brochure and video in the future through email, not only to originally planned schools in the vicinity of the investigated areas, but also to many others in the country, as well as to students of biology and other related faculties, NGOs and all interested general public.

- Educational video [YouTube link](#).
- Online copy of the brochure [download link](#).
- PPT presentation used for lecture in elementary school [download link](#).

Two new and significant floristic species records for the country that were collected in Subotica sands have already been published as a short note in a peer reviewed journal *Botanica Serbica*.

- **Sabovljević, M. S.**, Tomović, G., Boycheva, P., Ivanov, D., Denchev, T. T., Denchev, C. M., Stevanoski, I., Marković, A., Djurović, S.Z., Buzurović, U., Yaneva, G., Stefănut, S., Stefănut, M.M., Knežević, A., Petrović, P., Assyov, B., **Pantović, J.**, Niketić, M., Vukojičić, S., Ion, R. & Tamas, G. 2021. New records and noteworthy data of plants, algae and fungi in SE Europe and adjacent regions, 3. *Botanica Serbica*, 45(1): 119-127.
Full text download available at following [link](#)
- Tomović, G., **Sabovljević, M.S.**, Denchev, T.T., Denchev, C.M., Niketić, M., Boycheva, P., Ivanov, D., Šabanović, E., Djordjević, V., Kutnar, L., Stefănut, S., **Pantović, J.**, Grdović, S., Kuzmanović, N., Mašić, E. & Lazarević, P. 2021. New records and noteworthy data of plants, algae and fungi in SE Europe and adjacent regions, 4. *Botanica Serbica* 45(1): 129-136.
Full text download available at following [link](#)

It is planned to prepare remaining results for publishing in a peer reviewed journal. These results will be available for scientific public, Institute for Nature Protection, and managers of the protected areas

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

Grant was used in the period from the October 2019 to October 2021. Length of the project was extended for another year due to the previously stated reasons (Paragraph 2.).

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.

Budgeted, and granted, amount was 4981£. Payment was received in Euros, a total of 5222.55€ on 05.09.2019. For that reason, numbers in the table are shown in Euros.

Item	Budgeted Amount £	Actual Amount £	Difference (in Euros)	Comments
Workshops & Lectures Total	920	765	-155	Money planned for the lectures and workshops was redirected to creating of educational video presentation (costs of filming, graphics and video editing)
Lecture in Novi Sad	110			
Lecture in Belgrade	110			
Workshop for the kids, Horgoš	350			
Workshop for the kids, Subotica	350			
Educational material preparation (design)	400	423	+23	Extent of work changed.
Brochures, 1000 copies	400	153	-247	Change in price and number of copies.
Daily allowances for field trips (food, drink, etc.)	1440	1227	-213	Price difference is a result of exchange rates and currency calculated for daily allowances
Field trips (travel costs)	280	567	+287	Due to weather conditions and Covid-19 pandemic, we went to shorter field trips more often, hence the travel costs increased.
Photo equipment	636	707	+71	Price difference is a result of a change in price and selected model of the camera.
Stereo microscope	455	588	+133	Price difference is a result of a change in price and selected model of the stereo microscope.
GPS device	450		-450	We got GPS prior to the beginning of the project and there was no need to get

				another one. This sum was redirected to the photo equipment and stereo microscope.
Total	4981	4430	-551	

*Calculated according to the monetary currency on the transfer day 05.09.2019.

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

Considering the extent of field work and flora investigation done in this study, not all specimens have been processed. An important remaining task of the project is to finish identification of all collected material. Once this is done, results should be gathered and published in a bryofloristic paper. This publication could contribute to a better knowledge of bryophyte flora of Vojvodina province and Serbia in general, as well as better protection of the endangered species in the future. One of the most important future steps is to continue to monitor selected species of conservational interest. Education of the people and rising awareness about nature conservation is a long process, that should be continuously done.

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, we used The Rufford Foundation logo in the ppt presentation, brochure and video. We have also acknowledged the obtained grant and the Foundation in two published peer reviewed papers.

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

Jovana Pantović (PhD, Research Assistant, Faculty of Biology, University of Belgrade, Serbia) - field work, bryophyte identification, specimen herbarizing, paper writing, report writing, video presentation design, text and organizing.

Marko Sabovljević (PhD, Full Professor, Faculty of Biology, University of Belgrade, Serbia) - field work, bryophyte identification, paper writing, video presentation text.

Ivana Janković (PhD, Research Assistant, Faculty of Biology, University of Belgrade, Serbia) - field work, specimen herbarizing, databasing, report writing, preparing ppt presentation, video presentation organizing.

Jelena Bogosavljević (The Natural History Museum in Belgrade) - field work, specimen herbarizing, photo documentation, results dissemination, video presentation organizing.

Marija Gajić (Institute of Botany and Botanical Garden Jevremovac) - field work, specimen herbarizing, photo documentation, results dissemination, video presentation organizing.

12. Any other comments?

We are grateful to The Rufford Foundation for the support and hope to continue the collaboration in the future.

Please take a look at Photo Appendix below.

Photo Appendix



Photo 1. Locality Subotička peščara



Photo 2. Locality Selevenjske pustare, salt marsh



Photo 3. Locality Tavankut forest



Photo 4. Lecture in elementary school "Stevan Dukić" in Belgrade



Photo 5. Bryological field work