

Final Evaluation Report

Your Details	
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Project Title	Open biodiversity data: serving Nature Conservation in Ukraine
Application ID	34873-1
Date of this Report	10/07/2022

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
Organize expeditions to the important grassland regions of Ukraine to collect biodiversity data that would be used for declaration of new protected areas				Although because of the Russian invasion we had to change the regions of our field work and exclude Luhansk, Kherson and to a large extent Mykolaiv Regions, we performed many more field work in other regions that were available and safer for conducting field research.
Publish all gathered biodiversity data to GBIF				We published 66997 biodiversity records.
Prepare documents for new protected areas				30 new promising objects of the nature reserve fund have been developed, three of them have already been created, another 10 are planned to be created by various state bodies by the end of this year.
Organize workshops on biodiversity data gathering, promoting citizen science				Initially, three workshops dedicated to biodiversity data mobilisation were planned: two online seminars in winter time and one on-the-ground workshop in summer time: 1. On 08.10.2022 we conducted a complex expedition in the Kyiv region on the territory of the Rzhyschiv CATC. 17 people and three local experts participated. During the expedition, information was collected on the biodiversity of experimental sites with different effects of grazing and, in general, on autumn biodiversity. Everything is uploaded to the GBIF. A particularly important finds were - places of winter dormancy of smooth snake - <i>Coronella austriaca</i> , which is included in the Red Data Book of Ukraine (a total of four animals were registered, both adults and juveniles). After the expedition on

			<p>the territory of "Hlyboki Balyky" eco-station a meeting was held on the methodology of conducting complex expeditions. The meeting included 20 experts in botany, lichenology, ornithology, herpetology, nature conservation, mammalogy, etc.</p> <p>2. 10.11.2023, the Committee of the Verkhovna Rada of Ukraine on Environmental Policy held a hearing on the consequences of the war for the environment. We also had a talk and talked about the effects of war on biodiversity, mentioning the Rufford project.</p> <p>3. 23.11.2023, with the support of the World Bank, a cycle of online lectures for teachers "Ukrainian School of Charity" took place in Ukraine. We also read a description of our work and our project for 298 teachers online.</p> <p>4. 01.12.2022, we gave a lecture for 15 universities in Europe and the USA as part of the support of the Marsh Trust. During the lecture, we also talked about our project and its achievements.</p> <p>5. On 26-27.03.2023 we held methodological lectures and discussions between specialists at a conference dedicated to the anniversary of the creation of the National Natural Park "Kholodny Yar", which gathered 47 professional biologists specialising in the study of biodiversity.</p> <p>6. On April 2023 In terms of the Rufford foundation activities after official de-occupation of right-coastal part of Kherson administrative region, a lecture "Kamianska Sich National Park - the first freed natural pearl of the Kherson Region" was organised by the participants of the project.</p> <p>7. In February 2023 we also held an internal event of our organisation</p>
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			<p>to plan the manual for conducting expeditions, which we are preparing as part of our project, as well as planning expeditions for the last period of training in the spring of 2024. 16 botanists and zoologists took part in the meeting.</p> <p>8. In addition, we conducted a complex expedition in the Kyiv region on the territory of the Rzhyschiv CATC. 15 people and three local experts participated. During the expedition, information was collected on the biodiversity of experimental sites with different effects of grazing and, in general, on autumn biodiversity.</p> <p>9. On 7-8.04.2023 we combined the expedition with a seminar that we organised for all participants of our complex expeditions for 2020-2023, including all participants of our project. 15 participants were offline and another 15 online.</p>
Prepare management plans for existing protected areas			<p>Because of the war, this activity was shifted. Based on the project results, recommendations were issued to the Yelanetskyi Steppe Reserve in Mykolaiv Region.</p>
Webinars in 5 scientific and educational institutions			<p>1. On 02-03.07.2022 we made a presentation and mini-workshop for students of the 2nd year, Department of Ecology and Zoology, ESC "Institute of Biology and Medicine", Taras Shevchenko national university of Kyiv.</p> <p>2. On 11-12.10.2022 in terms of the project, Oleksii Marushchak, one of the participants of Rufford project "Open biodiversity data: serving Nature Conservation in Ukraine" presented a presentation "GBIF: how it works?" to more than 50 Ukrainian scientists and students on the "International conference of young scientists-zoologists 2022" - an online event organized by I. I. Schmalhausen Institute of Zoology NAS of Ukraine.</p>

			<p>3. Also at the plenary session, the participants listened to a report on the impact of military actions on the biodiversity of nature conservation areas of Ukraine, which was presented by a junior researcher of the department of animal monitoring and conservation - Olexiy Vasyliuk.</p> <p>4. On 02.05.2023, we gave an online webinar in Zoom for students, PhD students and lecturers of Zhytomyr Ivan Franko State University on the topic of importance and practical guidelines about registration of representatives of biodiversity using GBIF and iNaturalist online platforms. This webinar was a part of the practical training for students from biological specialisations. As a result of this webinar a dataset on local biodiversity of the Zhytomyr region is planned to be published on GBIF.</p> <p>5. On 27-28.05.2023 together with the Department of Ecology and Zoology of Taras Shevchenko National University of Ktyiv and the Department of Ecology of National University of Kyiv-Mohyla Academy we held a student internship at the station "Hlyboki Balyki" in the Kyiv region.</p>
Publish guidelines for biodiversity data collection and open data publication			This activity was not achieved, as most of the experts who initially were supposed to be involved in this activity were moved to other places in the turmoils of war. The momentum has gone for finishing this task, and so we had to skip this and focus on other achievable tasks.

2. Describe the three most important outcomes of your project.

- a). Regardless of war, we were able to collect many important biodiversity data.
- b). We have created three new protected areas and another 27 were projected and are now in the process of juridical creation.

c). In terms of the project 24 datasets were published on the GBIF open platform with 66997 records now available for global scientific and conservationists community. 14 actions (webinars, lectures, workshops, talks) were conducted in order to popularise the data collecting and publishing in order to save valuable biological information and use it for nature conservation as well as for fundamental science (the datasets were cited in 26 scientific articles so far).

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

During the project, we encountered the consequences of the war, which were not foreseen at the time of planning the project. First, part of Ukraine (including the originally planned locations of the project) became occupied by Russian troops or mined. This forced us to turn to Rufford with a request to partially change the locations for field research. But it should be noted that although we were not able to survey part of the territories, we were still able to collect retrospective data about them from colleagues who surveyed them before the start of hostilities. This information will be extremely important for analysing the consequences of military actions for biodiversity in the future. Secondly, we could not foresee that in most regions of Ukraine due to the state of war, visits to the territories will be limited, which greatly reduced the possibility of conducting large complex expeditions. With Rufford's consent, we were forced to change the activity of preparing a manual on conducting complex expeditions and instead held an online event for scientists, as a result of which 13,877 facts of encounters of rare species were collected from the participants (published in the form of a specialized publication and a data set at the GBIF).

In general, we can summarise that the martial law has led to a delay in project implementation, but the project's tasks were fulfilled.

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

A particularly important project was for IDP scientists, to whom we helped to publish their data on biodiversity. However, the biggest contribution came from local specialists working in different regions in communities, whom we helped to design and publish their materials on rare species (230 people in total), which became the most massive joint collection of data from local specialists. For the communities, our work was felt where we proposed new objects of nature reserve fund (NRFs), for example, the already created Kazkovy Yar and Transcarpathian Sea reserves caused very positive publicity in the communities and the media, because the local communities were very afraid that these locations would not be built up by industry and hotels and remained grateful to us for our help in the creation of NRF objects. Another thing is not less important - data on rare species published on GBIF help communities to defend their territory from dangerous projects under the EIA procedure, because communities usually do not have their own specialists, and to prove without data on rare species that the territory is valuable and should be preserved is impossible in Ukraine. So the project really brought a positive impact for many Ukrainians.

5. Are there any plans to continue this work?

The project is a part of our work on the protection of grasslands in Ukraine, and after its completion, this work will continue. In the future, we plan to use the collected materials to propose new NRFs and to protect natural areas in cases where information about rare species is needed (for example, when we are involved in the EIA processes). We are currently preparing the following articles by our authorship, which will also be published in scientific publications.

However, the main thing is that we will continue to collect information about biodiversity in the same way, because without actual material about rare species on the territory, it is impossible to protect it. But we assume that our activities in the next period will be directed to the study of the consequences of the war for rare species, because it is already clear that the populations of many of them in the south of Ukraine have been significantly affected, and perhaps they have completely disappeared on the territory of Ukraine.

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

All the collected information about rare species was published by us on GBIF and is already actively quoted in dozens of articles by specialists from different countries of the world. In the future, the number of citations will increase every month. Also, we have already published two articles using the data collected during the project:

- Nekrasova O. D., Marushchak O. Yu. Records of common species of amphibians and reptiles widespread in northern, central, western and southern Ukraine (<https://www.gbif.org/uk/dataset/148bc5c8-0408-424c-84d2-d491ea2e234d>);

- Polchaninova N., Marushchak O. Spiders (Araneae) of the northeast of the Luhansk Oblast (Ukraine) (<https://www.gbif.org/uk/dataset/765d4ecb-a667-4f23-b95e-5254e7140d7e>).

We also transferred the collected information to the Institute of Zoology and the Institute of Botany of the National Academy of Sciences, and it will be used to prepare a new edition of the Red Data Book of Ukraine.

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

First of all, it is important to complete the creation of new territories of the NRF, which we proposed during the implementation of the project. Martial law slows down non-defense decisions. Unfortunately, this also delays the creation of the NRF. Out of 30 proposals for the creation of new conservation areas (CAs) prepared by us, the first three have already been created in three different regions of Ukraine. We expect that at least 10 new CAs will also be created by the end of this year. We constantly continue to work with state bodies so that the process of creating new CAs does not stop. However, it takes a long time. Based on the materials we have collected about biodiversity, it is possible to propose new equally important CAs, so we have started work (already outside the project) on nine new CA proposals.

In addition, in the spring of 2023, a new legal mechanism was introduced in Ukraine - the creation of protective zones for populations of the species listed in the Red Data Book of Ukraine. And we have already begun to test its effectiveness - we have submitted proposals for the creation of the first seven pilot security zones in three regions of Ukraine. If this method is effective, we will maximally use the information collected in the project about rare species to create protective zones in different regions of Ukraine.

8. 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?

Of course we used the Rufford logo in all the power point presentations of all the events we held or participated in (all of which were listed in our interim reports), we also published two volumes of the scientific data on species encounters and on the cover of these the Rufford logo is indicated first, and information about the project is in the description of the publication. Also, we created a filter for the results of the project on Inaturalist <https://www.inaturalist.org/projects/open-biodiversity-data-serving-nature-conservation-in-ukraine>

the project and the Rufford Foundation are also identified everywhere in the datasets on the GBIF created as part of the project (for example, the materials of the expeditions of the project <https://www.gbif.org/uk/dataset/2d8d3cd4-da79-419b-9428-4820d44d30fd> , materials collected as part of project by individual participants - <https://www.gbif.org/dataset/23ccb221-13cf-4011-853a-2af463b3d85b> etc.)

During the events, we talked about the goals of the project and the support of the Rufford Foundation. similarly, the project is identified in our publications on the Internet (for example <https://uncg.org.ua/doslidzhennia-bioriznomanittia-ukrainy-tryvaiut/>) and in all

9. Provide a full list of all the members of your team and their role in the project.

The core team included:

Oleksii Vasyliuk - overall project coordination, publishing materials, communication

Oleksii Marushchak - biodiversity data processing, webinars and workshops, GBIF management, amphibian & reptilian surveys

Mikhail Rusin - field expedition organization, mammal surveys, management plans for protected areas

Kateryna Garbarchuk - preparing documents for new protected areas

Ivan Moisienko, Oleksandr Shynder, Anna Kuzemko - collecting data on plants

Vitalii Kavurka, Nazar Nazarov, Oleksandr Martynov, Oleksiy Prokhorov - collecting data on insects

Vasyl Kostyushyn, Hanna Kuzio - collecting data on birds

Gabriel Hushtan, Kateryna Hushtan - collecting data on Arachnida

There were many additional participants of the events (including 230 of those who we organized to provide data for publication), but this is not the project's core team, thus still making contribution to the fulfilling of project's goals via communication with us.

10. Any other comments?

We believe that the project helped to raise the interest of Ukrainian scientists in collecting data on biodiversity and publishing it, and also started the creation of really important NRFs. The collected materials will be used by scientists in many studies, because they are now available at the GBIF.