Project Update December 2021

Our aims:
During this project, we plan to collect approximately 50,000 records of protected animals, plants and fungi. This will be a backbone for establishment of new protected areas and Emerald Network sites, as well as for development of management plans for already existing areas of nature conservation. As a result, we will prepare documents for all the important sites identified and provide them directly to the Ministry of Ecology and Natural Resources of Ukraine. Our collected data on the occurrences of protected species will facilitate the establishment of new nature conservation areas.

We will also develop and popularise methodology for biodiversity data collection and publishing on GBIF. We believe that open biodiversity data is one of the key factors in further development of nature conservation.

Project realization during September – December 2021:
The Rufford Small Grants Programme supported our project in August 2021, at the end of the 2021 field season. At that time of the year most species of insects, flowering plants and nesting birds could no longer be detected, so we decided to transfer all complex expeditions to the 2022 field season in order to ensure effective implementation of the project. Simultaneously, in 2021 a series of reconnaissance expeditions was conducted to test methods of information collecting and organising the logistic part of expeditions. These expeditions were conducted as the own contribution of the participants.

The main part of the work in the first 4 months of the project was focused on developing and popularisation of methodology for biodiversity data collection and publishing on GBIF.

Webinars
We have developed lectures on the subject "Open data publishing tools for students and teachers of natural sciences".

The lecture was given in the form of a webinar for students and teachers of 14 Ukrainian universities in November 2021 as well as at the Institute of Zoology of the National Academy of Sciences of Ukraine in October.

In total, the lectures were attended by about 500 students and teachers of biology and related environmental disciplines.

Map of webinars: https://cutt.ly/KUrDsxv

Dates and places of webinars:

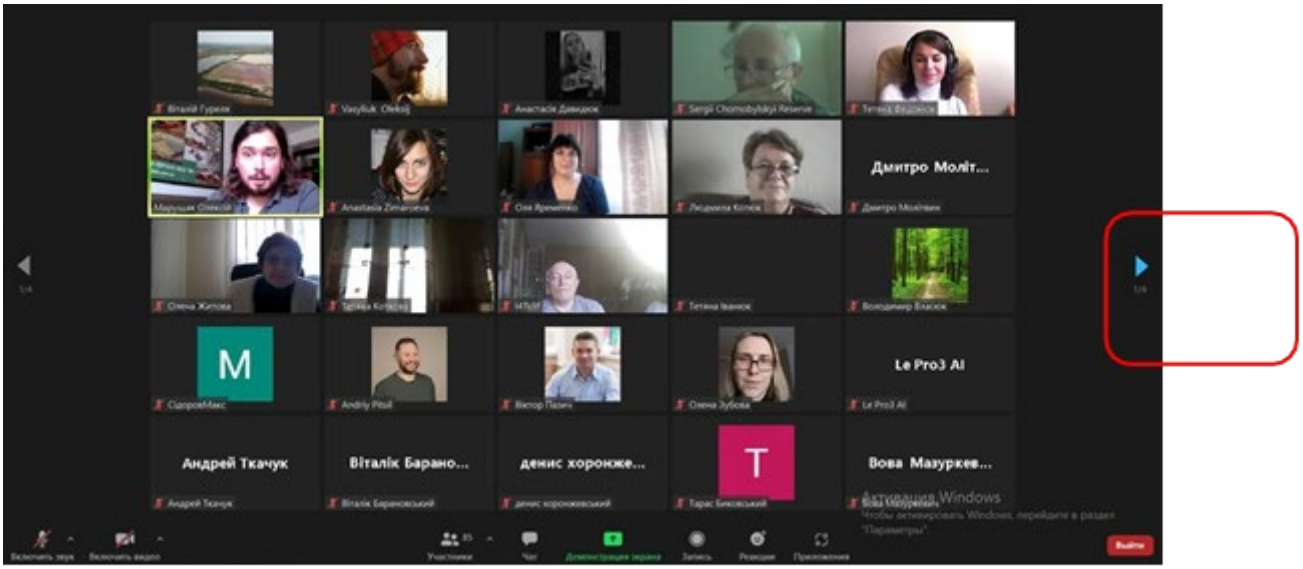
- Polissya National University, Zhytomyr (8 November 2021).
- Bohdan Khmelnytsky Melitopol State Pedagogical University, Melitopol (8 November 2021).
- Oles Honchar Dnipro National University, Dnipro (8 November 2021).
- The National University of Life and Environmental Sciences of Ukraine, Kyiv (10 November 2021).

- National University of Kyiv-Mohyla Academy, Kyiv (11 November 2021).
- Taras Shevchenko National University of Kyiv, Kyiv (17 November 2021).
- The Bohdan Khmelnytsky National University of Cherkasy, Cherkasy (18 November 2021).
- Open International University of Human Development "Ukraine", Kyiv (22 November 2021).
- Petro Mohyla Black Sea State University, Mykolaiv (23 November 2021).
- Kherson State University, Kherson (24 November 2021).
- Hlukhiv National Pedagogical University of Oleksandr Dovzhenko, Hlukhiv (28 November 2021).
- Poltava University (28 November 2021).
- Zhytomyr Ivan Franko State University, Zhytomyr (28 November 2021).
- Hryhorii Skovoroda University in Pereiaslav, Pereiaslav (28 November 2021).

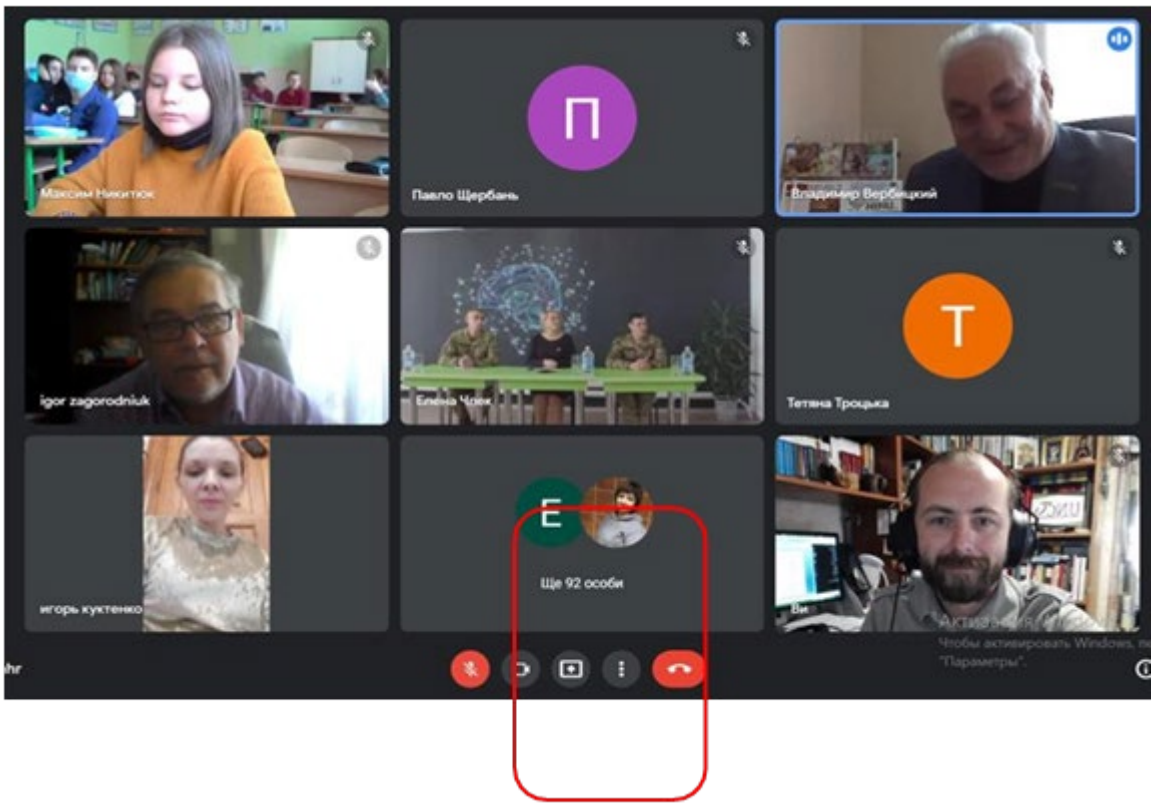
News about the webinars were published on official websites of some universities.

News:
https://cutt.ly/8UrHn0w
https://cutt.ly/BUrHWqK
https://cutt.ly/0UrHAtH
https://cutt.ly/nUrHFuQ

Video Record:
https://cutt.ly/pUrHVYg



Moreover, we read a simplified version of the lecture on November 11 online for 94 schools in Luhansk region, in a joint web lesson of biology.



Additionally, another lecture on valuability and possible ways of publishing of biodiversity's registrations on iNaturalist and GBIF was organised for pupils of Gymnasium №136, Kyiv (a total of 32 participants).

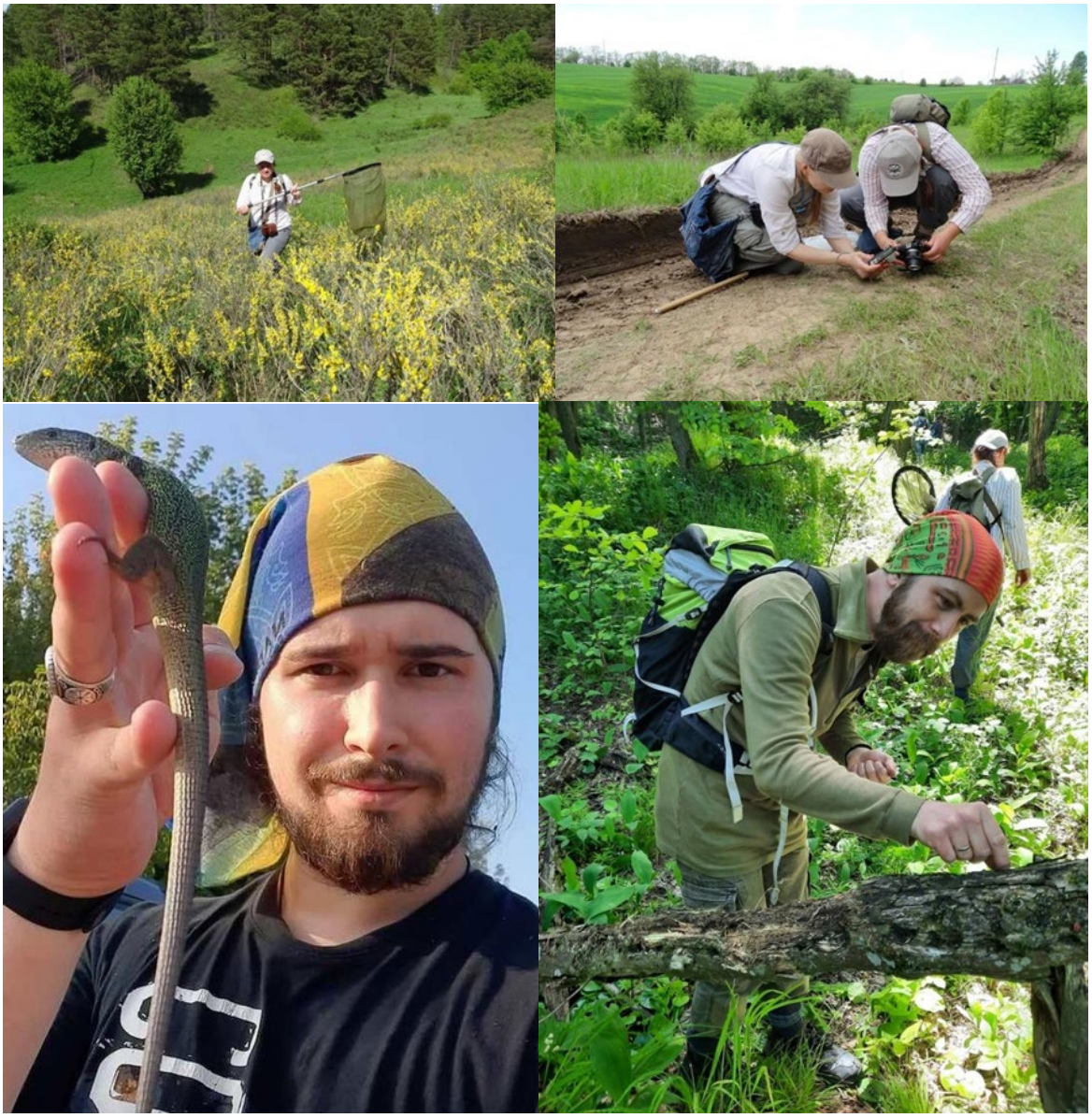
On the UNCG website, as well as on social networks (Facebook, Instagram), there were announcements about the possibility of holding webinars, so all webinars were held in those universities that took the initiative.

https://uncg.org.ua/u-vashomu-universyteti-tsikavu-lektsiiu/
https://uncg.org.ua/koryst-vid-vykorystannia-gbif/

Development of methodology for data collection and planning of expeditions.
From 18-19 December 2021, we met with the project team and other experts, to whom we will join in the expeditions in 2022. The meeting took place in Rzhyshchiv, Kyiv region and gathered 17 researchers. In January-February 2022, we also plan to hold two methodological seminars for a wider range of participants. These seminars were planned during a meeting in December 2021.

Reconnaissance expeditions
During the first 4 months of the project, we also conducted reconnaissance expeditions, during which we tested the most effective methods of collection of information on biodiversity. The results of the planning of such best practices will be made public during the next two months on the special seminars within the project and in a special methodological publication.

During these test trips, we also collected information (5,137 points have already been published on GBIF), and recorded the presence of some species using the iNaturalist tool, for this we created a special project on iNaturalist https://www.inaturalist.org/projects/open-biodiversity-data-serving-nature-conservation-in-ukraine. Up to now, this tool has additionally collected 8957 observations, with 5279 – research level included (2194 species in total).



Preparation and publication of datasets on GBIF
During the current 4 months of the project, we have been publishing data on GBIF. This applies to both our own data collected during test expeditions and datasets

from listeners of our webinars, which they wanted to publish after the webinar, as well as data from other scientists who contacted us and published datasets with our help.

In total, thanks to the project, 29 well-prepared datasets were published (a total of 66,365 findings). But not all of these findings relate to rare species, so in 2022 we plan to significantly increase the number of published data through expeditions and get up to 50,000 records focused on rare species only.

In general, more accurately assessing our potential, we can predict that in addition to 50,000 records of rare species, in 2022 we will be able to publish up to 100,000 records of other species.

According to the results of reconnaissance expeditions, nine datasets (6176 records) were prepared on the territory of Kherson and Kyiv regions:

https://www.gbif.org/uk/dataset/86507019-bffe-401e-b93e-0516543bbea3
https://www.gbif.org/uk/dataset/64981a03-1056-4add-b78c-84dda4f8efa9
https://www.gbif.org/uk/dataset/30481570-92ba-4ab0-ac6d-5ca34d1f00a4
https://www.gbif.org/uk/dataset/d94fe0c4-adb2-4ccd-afca-ede8a3ad99fd
https://www.gbif.org/uk/dataset/1db99bb6-d0b2-48b3-aab9-ed9ff95736c4
https://www.gbif.org/uk/dataset/bd26b03c-2cdf-47d6-8e30-7d4b7186c492
https://www.gbif.org/uk/dataset/91eccba9-8801-42df-83aa-217f2bb89503
https://www.gbif.org/uk/dataset/3b5759e3-0a06-48e6-89b8-4f972b197768
https://www.gbif.org/uk/dataset/667e38d0-8625-4df6-b3c3-dde744a9586c
https://www.gbif.org/uk/dataset/f6ae547f-2dc3-44be-973d-5839b3de38ff

As a result of the webinars, seven datasets on different groups from different regions of Ukraine were created and downloaded (32,359 total records). It is important that the webinar listeners provided their materials for publication on our GBIF profile.

https://www.gbif.org/uk/dataset/4f3a73a3-ee40-42cd-b678-24516f32d56e
https://www.gbif.org/uk/dataset/2ccf651c-2974-4ac5-807c-dd43cb7de973
https://www.gbif.org/uk/dataset/5878bb2f-9156-4958-9d5a-71e648fbbe6e
https://www.gbif.org/uk/dataset/453ea4dc-e3de-4feb-a699-65060559bc49
https://www.gbif.org/uk/dataset/9fc96854-7fb4-4d4e-8fd2-e7cbf88915a6
https://www.gbif.org/uk/dataset/e1fed3c3-97eb-4c4b-8472-a7928e45a52f
https://www.gbif.org/uk/dataset/e8493b71-eb33-455d-bd20-e773ce30fe48

Moreover, the project team conducted educational work on the possibilities of publishing datasets among researchers during the project period. As a result, another 12 datasets (27,830 records) were published.

https://www.gbif.org/uk/dataset/951a8449-9d4e-44f6-8e29-cc9ecbabf0ed
https://www.gbif.org/uk/dataset/8bb31819-cdb1-44b1-b3e8-6315e011c3ce
https://www.gbif.org/uk/dataset/646daa81-9b48-445a-9eba-56f73192f647
https://www.gbif.org/uk/dataset/e1c67ddd-1027-4ed0-9835-bd7480c24aee
https://www.gbif.org/uk/dataset/ffc0834b-f129-4821-b626-0f23e18be6b8

https://www.gbif.org/uk/dataset/ccbb9066-364a-4a3d-8546-0e3cc04040e3
https://www.gbif.org/uk/dataset/d96cb9d2-ec75-45bf-8771-849e731c685d
https://www.gbif.org/uk/dataset/88cf2487-51a5-4f9a-a6a2-82ad28398dc9
https://www.gbif.org/uk/dataset/f6246c23-9eb9-4392-b0af-c2427282e196
https://www.gbif.org/uk/dataset/33f7f618-bc62-4cf3-ab46-92def77a2b69
https://www.gbif.org/uk/dataset/3de42107-8d0d-416b-ae02-0f0ca038b944
https://www.gbif.org/uk/dataset/f81b9b6c-ae10-4281-8b20-5db481ce8cc8

We are also negotiating with biologists from the project region and other parts of Ukraine to create a joint dataset, which will consist of data already collected by each of the authors, which relate to extremely rare species. The planned dataset will include up to 10,000 records and will be created in January 2022. The geographical coverage of this dataset will allow us to clarify the routes of planned expeditions, which will survey previously unexplored areas, or vice versa – to explore valuable natural areas by a more complete team of specialists from different groups.

Project team in September-December 2021: Vasyliuk Oleksii, Marushchak Oleksii, Rusin Mykhailo, Kuzemko Anna, Bezsmertna Olesia & Kutsokon Iulia.