

Project Update: April 2023

Period: December 2022 - June 2023

From December 2022 to May 2023, following the previous agreement with The Rufford Foundation, we continued our work in those ways that were possible under the conditions of war. This was caused by military actions in Ukraine, the need to adjust the logistics of the project, as well as the fact that most of the project team at the beginning of 2022 were internally displaced persons and immigrants in other countries. This interim report is the last one, as we have finally been able to complete the tasks set.

Nevertheless, we continued our work on collecting materials, conducting and participating in various eco-education events, creating and publishing datasets on GBIF. We are sincerely thankful for your understanding of the situation and all the support we have from your side.

Nevertheless, from December 2022 to May 2023 we did the following activities:

- Made field trips to various regions of Ukraine.
- Published open data to GBIF.
- Proposed new nature conservation areas to the Ministry of Environmental Protection and Natural Resources of Ukraine.
- Selected areas for new Emerald Network sites.
- Organised series of lectures, webinars and other events popularizing GBIF, iNaturalist for publishing biodiversity data.

1. Collection of field data during the expedition.

We organised a series of expeditions to regions where it was relatively safe to travel and work in the field.

In particular, we organised an experimental survey of the territory of the National Natural Park (NNP) "Kholodny Yar" in the Cherkasy region in the center of Ukraine. This is the youngest national park in Ukraine, and its creation was based mainly on historical and cultural value. However, there have been very few biological studies in this area. Also, no biologist works in the park yet. We participated in a scientific seminar (which will be described below in the text), at which we showed park employees the best examples of biological research in the objects of the nature reserve fund (NRF), provided important methodological recommendations, agreed on conducting expeditions in 2023, and also conducted some preliminary studies. Our team came to the national park and demonstrated to the workers exactly how it is better to organise the research of various groups of living organisms. We documented this experimental study on iNaturalist platform and even taking into account the early spring period, we discovered 254 species of living organisms, eight of which have various conservation statuses. <https://www.inaturalist.org/projects/kholodnyi-yar-national-nature-park>

2. Collecting data on biodiversity from the territories that were de-occupied or are extremely close to the frontline.

Members of our organisation, as part of a humanitarian mission in the Kamianska Sich National Park (it was unoccupied at the end of 2022), in which we delivered

humanitarian aid to the park employees, together with its staff, inspected the territory affected by hostilities. This park is perhaps the most affected, so it was important for us to record the damage and collect data on the state of biodiversity. For example, Russian troops masked fortifications with sedge bushes, which is listed in the Red Book of Ukraine.



The shelter of russian troops is camouflaged by the bushes of several types of weed.

3. Lecture in the de-occupied national park

We held 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. We held methodological lectures and discussions between specialists from March 26-27, 2023. Based on the results of the event, a collection of scientific and methodical articles is planned to be published (we will publish it in the

near future at our own expense). We came together to the national park and demonstrated to the workers exactly how it is possible to organise the search and research of various groups of living organisms. Together with the park, we have planned the most effective research for 2023, which our team will join.



4. Spring complex expedition to the territory of Rzhyschiv amalgamated territorial community (CATC)

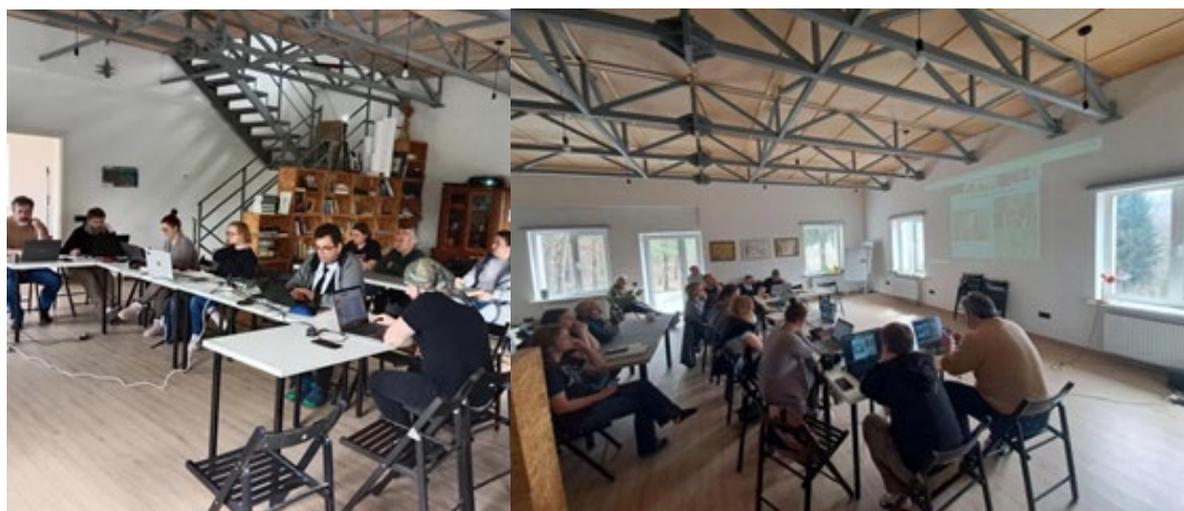
In addition, we conducted a complex expedition in the Kyiv region on the territory of the Rzhyschiv CATC. 15 people and three local experts participated. During the expedition, information was collected on the biodiversity of experimental sites with different effects of grazing and, in general, on autumn biodiversity.

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. It was impossible to collect all of them, because some of them are immigrants in other countries. By the way, heads of local self-government bodies were also present. We discussed all the complex expeditions we conducted and their results and planned further activities to consolidate scientists to conduct complex expeditions to study local biodiversity.

We have published the full video of the event on our YouTube channel so that other biologists can watch it later:

P1: <https://www.youtube.com/watch?v=B23htp4ZkoY>

P2: https://www.youtube.com/watch?v=TAHLOXBi_EI



articles in local media about the event:

<https://obukhiv.info/news/na-eko-stantcii-bilya-rzhishcheva-rozkazhut-pro-biori%20znomaniitya-gromadi/>

feedback from the head of the ATC:

[https://www.facebook.com/permalink.php?story_fbid=pfbid025trz78udzBb9dU9KUo_prAMRHfZpvTd9nQFpWqENDSTLnbHPoLPPZLzdgB64FMcsl&id=100001371206138&_cf_t__\[0\]=AZX9QpJNki7RrC1MNQ1mmRHYNzm4bwcQAb-BV3rLfdmFwU2tk8cgTlgvbMcPXRnFvaqKODXc8ZZyGohNUXtff4wBzH-Cw6w6d22IK7j209Jpx0OJKbxm1Z1zrCYY47I2aiatYtPzy6fwd8bELTtjHoRPhckjAEIarWTD E03Ez3T1Hg2E wa0DHWyylAEaYBg&_tn_=%2CO%2CP-R](https://www.facebook.com/permalink.php?story_fbid=pfbid025trz78udzBb9dU9KUo_prAMRHfZpvTd9nQFpWqENDSTLnbHPoLPPZLzdgB64FMcsl&id=100001371206138&_cf_t__[0]=AZX9QpJNki7RrC1MNQ1mmRHYNzm4bwcQAb-BV3rLfdmFwU2tk8cgTlgvbMcPXRnFvaqKODXc8ZZyGohNUXtff4wBzH-Cw6w6d22IK7j209Jpx0OJKbxm1Z1zrCYY47I2aiatYtPzy6fwd8bELTtjHoRPhckjAEIarWTD E03Ez3T1Hg2E wa0DHWyylAEaYBg&_tn_=%2CO%2CP-R)



5. Traditionally, we highlighted all of the fieldwork events on our website and social networks, including Facebook, Telegram, Twitter and Instagram.

News related to our work in Rzhyschiv CATC

<https://uncg.org.ua/bioriznomanittia-rzhyschivskoi-miskoi-ob-iednanoi-terytorialnoi-hromady/>

<https://www.youtube.com/watch?v=KY-Ddc0xYb4>

<https://www.youtube.com/watch?v=m3s65DcDX2g>

<https://www.youtube.com/watch?v=B23htp4ZkoY>

https://www.youtube.com/watch?v=TAHLOXBi_EI&t=16s

https://www.instagram.com/_uncg/

<https://www.facebook.com/UkrainianNatureConservationGroup/videos/>

<https://www.facebook.com/UkrainianNatureConservationGroup/>

<https://uncg.org.ua/en/>

+mass media

<https://obukhiv.info/news/eko-chudo-na-rzhyschivshchini-znaishli-voskreslu-richku-i-v-nii-ribu/>

News related to our work in Kholodny Yar

<https://www.facebook.com/UkrainianNatureConservationGroup/videos/>

https://t.me/ngo_uncg/759

<https://www.instagram.com/p/Cq4p6dqP0ef/>

<https://bit.ly/3MR4MiA>

6. Collecting data from researchers and conservationists for publishing in GBIF

The process of data mobilisation took place during both complex individual expeditions to available sites of wild nature. Such expeditions consisted of scientists (that were at the time of data collecting ready to work and some of which are the internally displaced persons) that represented different fields of biology: mycologists, botanists, herpetologists, ornithologists, ichthyologists, entomologists, teriologists, etc. During the field trips the data was collected in the most comfortable way for particular scientists with relevant changes needed to fulfill the requirements of subsequent Darwin Core based data organising. In such a way more than 20,000 records were collected and at least the same amount of data is expected to be added soon, as some groups (micro-invertebrates) require more time for preparation

of the material for species identification. Moreover, where and when possible, such expeditions continue to be held.

7. 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, during December 2021 - April 2023, 19 well-prepared datasets were published (a total of 51 640 records).

According to the results of expeditions, 12 datasets (35823 records) were prepared on the territory of Kherson and Kyiv regions. According to our studies:

- Materials of the project "Open biodiversity data: serving nature conservation in Ukraine (13309 records)
<https://www.gbif.org/uk/dataset/2d8d3cd4-da79-419b-9428-4820d44d30fd>
- Materials to the flora of fragmented areas of Podilski Tovtry based on the results of field research in 2022 (4410 records)
<https://www.gbif.org/dataset/23ccb221-13cf-4011-853a-2af463b3d85b>
- Birds of Drevlianskyi Nature Reserve (Zhytomyr administrative region of Ukraine) (699 records)
<https://www.gbif.org/dataset/cce6e9a5-f95b-4c90-aaa4-684b1ea5fc45>
- Records of ornithofauna along the Protoka river in Kyiv region, Ukraine (394 records)
<https://www.gbif.org/uk/dataset/9fe3ae60-6197-4464-a76a-43259eb643b4>
- Short animal diversity notes from Protasiv Yar, Kyiv, 2022 (82 records)
<https://www.gbif.org/dataset/f2c0c252-e43f-43da-90ec-509a0cbe7f5e>
- Spring and early summer aspects of the insect fauna of the Lower Sula National Nature Park (497 records)
<https://www.gbif.org/uk/dataset/74f082a2-c729-4533-a202-7a2caaa6a148>
- Flora of vascular plants of the Lower Sula National Nature Park (656 records)
<https://www.gbif.org/uk/dataset/5cc3acb2-4aac-4d3d-b676-e197f5628852>
- Records of vascular plants from DarkDivNet sampling in Kamianska Sich National Nature Park (site D194) (1970 records)
<https://www.gbif.org/dataset/24e6ef1c-8e52-48aa-a480-be658214f1b8>
- Records of vascular plants, bryophytes and lichens from the 15th EDGG Field Workshop "Grasslands and coastal habitats of Southern Ukraine" (5497 records)
<https://www.gbif.org/dataset/5eb9d316-3b09-414c-ad57-e57b206c354b>

- Plants of the Hnylyi Tikych River basin and adjacent territories (3971 records)
<https://www.gbif.org/dataset/079253ef-00cd-4aec-93cb-72529974f942>
- Records of fauna and flora of Sumskyj district of Sumy region in 2022 (488 records)
<https://www.gbif.org/uk/dataset/e3c7d0a1-b8f5-4ed8-b830-96a873c6f937>
- Records of parasites of domestic animals in Ukraine (according to the State Service of Ukraine for Food Safety and Consumer Protection) (2458 records)
<https://www.gbif.org/uk/dataset/7a50c55b-d80d-4572-b26c-4ba8e952d134>
- Some records of animals in Ukraine (2105 records)
<https://www.gbif.org/uk/dataset/725ba6ca-e7e0-4827-9296-14e3bc4a4e86?f%20bclid=IwAR2Y5duB7PhlqPndIqnMvZhuOTES8Kg92QlAGbskyq6jzOAxuDy1CU%207xc>

Moreover, the project team conducted educational work on the possibilities of publishing datasets among researchers during the project period. As a result, another seven datasets (24046 records) were published.

- Records of bird species digitised from registration cards and questionnaires stored in collections of Department of Ecology and Zoology of ESC "Institute of biology and medicine", Taras Shevchenko National University of Kyiv (4060 records)
<https://www.gbif.org/dataset/f1b23b93-1df3-4e73-8de1-c0c368202a11>
- Materials of the herbarium of the Falz-Fein Biosphere Reserve "Askania Nova" of National Academy of Sciences of Ukraine (6216 records)
<https://www.gbif.org/uk/dataset/25e1360c-cc26-458b-a993-9b8404036ad8>
- Historical finds of deer fern (*Blechnum spicant*) from the territory of Ukraine (337 records)
<https://www.gbif.org/uk/dataset/ca9dc1dc-e29f-462d-a2c6-ed21ecf6d3ca>
- Field observation of *Spalax arenarius* during 2016-2021 (1004 records)
<https://www.gbif.org/uk/dataset/5c216d11-fe9a-4953-b9e4-1feb0b8bf788>
- Findings of birds (Aves) in the National Natural Park Tuzlivsky Lagoons and its surrounding area (Ukraine) during the nesting period of 2022 (58 records)
<https://www.gbif.org/uk/dataset/5468b347-243a-433b-9c00-b88534ad2922>
- Records of common species of amphibians and reptiles widespread in Northern, Central, Western and Southern Ukraine (3960 records)
<https://www.gbif.org/dataset/148bc5c8-0408-424c-84d2-d491ea2e234d>
- Particular records of helminths from common species of herpetofauna of Ukraine (132 records)
<https://www.gbif.org/dataset/ec73e150-38ce-46ff-9268-70bc0dd86a60>
- Records of alien species in Ukraine (8239 records)
<https://www.gbif.org/uk/dataset/36914742-56c5-4d54-a18a-6ab1e41b9240>

8. Creating of new objects of nature reserve fund

We submitted and created the zakaznik (sanctuary) of local importance.

The creation of the reserve had a resonance in the mass media with our participation.

List of submitted new 30 promising objects of nature reserve fund include:

- Landscape reserve of local importance "Bereh Dnistra" in Chernivtsi region – 28,15 ha.
- Landscape reserve of local importance "Kaplivskyi potik" in Chernivtsi region – 22,75 ha.
- Landscape reserve of local importance "Urochyshche Kytrosy" in Chernivtsi region – 60 ha.
- Landscape reserve of local importance "Skhyly Surshi" in Chernivtsi region – 35,71 ha.
- Landscape reserve of local importance "Perkivs'ki kruchi" in Chernivtsi region – 92,8 ha.
- Landscape reserve of local importance "Koloniya khovrakha" in Chernivtsi region – 0,48 ha.
- Landscape reserve of local importance "Kytroskyi" in Chernivtsi region – 5,1 ha.
- Landscape reserve of local importance "Kaplivskyi" in Chernivtsi region – 17,37 ha.
- Landscape reserve of local importance "Hrushivtsi-Babyn" in Chernivtsi region – 45,66 ha.
- Landscape reserve of local importance "Anadoly" in Chernivtsi region – 29,6 ha.
- Landscape reserve of local importance "Sapizhanskyi" in Vinnytsia region – 66,8 ha.
- Landscape reserve of local importance "Balka Pokutyono" in Vinnytsia region – 33,98 ha.
- Landscape reserve of local importance "Pryberezzhzhya Yalanky" in Vinnytsia region – 54,73 ha.
- Landscape reserve of local importance "Haryachkivka" in Vinnytsia region – 205,11 ha.
- Landscape reserve of local importance "Sadkivskyi" in Vinnytsia region – 86,27 ha.

- Landscape reserve of local importance "Hovrashivya" in Vinnytsia region – 9,613 ha.
- Landscape reserve of local importance "Buchyna" in Vinnytsia region – 352,2 ha
- Landscape reserve of local importance "Pozhezhnyy lis" in Vinnytsia region – 273,2 ha
- Landscape reserve of national importance "Elba" in Luhansk region – 2375 ha.
- Landscape reserve of national importance "Delfiniyevyi skhyl" in Luhansk region – 381 ha.
- Landscape reserve of national importance "Kalmiusky" in Donetsk region – 37630 ha.
- Landscape reserve of local importance "Kazkovyi yar" in Kyiv region – 169 ha.
- Landscape reserve of local importance "Babakovyy prostir" in Kyiv region – 350 ha.
- Landscape reserve of local importance "Ripnytsya" in Kyiv region – 33,0291 ha.
- Botanical reserve of local importance "Pleskachivs'ki pervotsvity" in Cherkasy region – 15 ha.
- Landscape reserve of local importance "Makiivska dacha" in Kyiv region – 206 ha.
- Landscape reserve of local importance "Poseymya Sosnytske" in Chernihiv region – 875,32 ha.
- Landscape reserve of local importance "Poseymya Vysochanske" in Chernihiv region – 483 ha.
- Botanical monument of nature of local importance "Oblapska lypadovhozhytel" in Volyn region – 0,1 ha.
- Landscape reserve of national importance "Free Svidovets" in Zakarpattia Oblast – 17550 ha.

Landscape reserve of local importance "Kazkovyi yar" in Kyiv region & Botanical reserve of local importance "Pleskachivs'ki pervotsvity" in Cherkasy region are already created. Other territories have been approved by state authorities and the Ministry of Environmental Protection and Natural Resources of Ukraine, and we expect their creation in the coming months.

9. Popularisation of GBIF and citizen science platforms (iNaturalist) as tools for publishing wildlife observations on different events

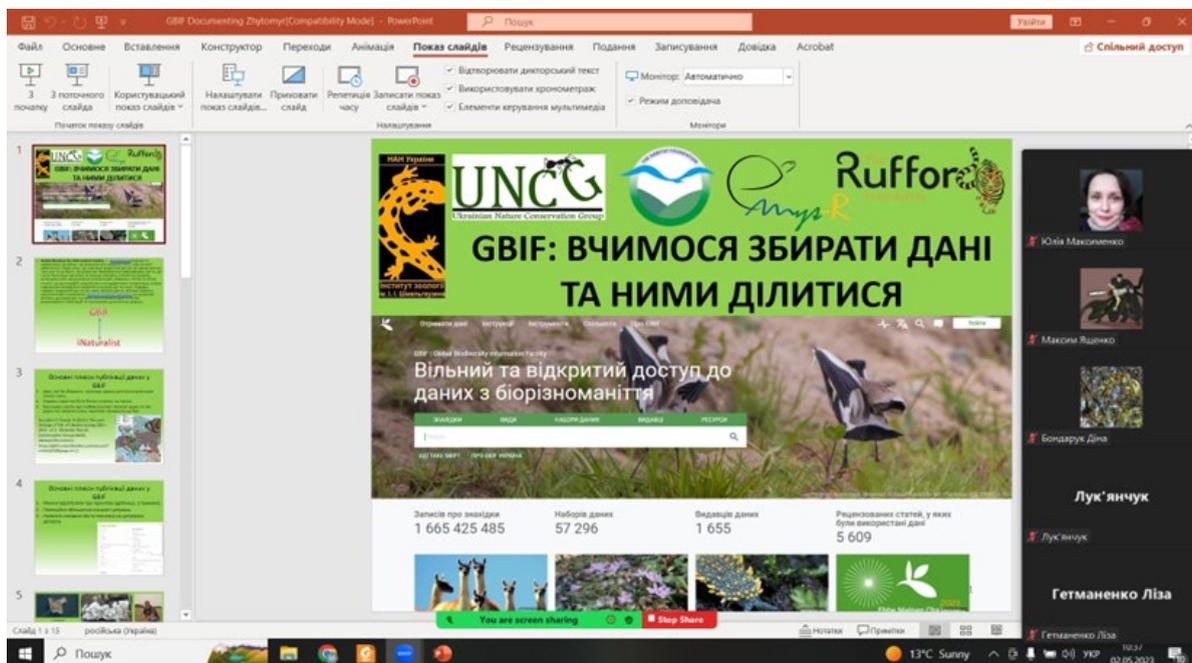
On 10th November 2022, the Committee of the Verkhovna Rada of Ukraine on Environmental Policy held a hearing on the consequences of the war for the

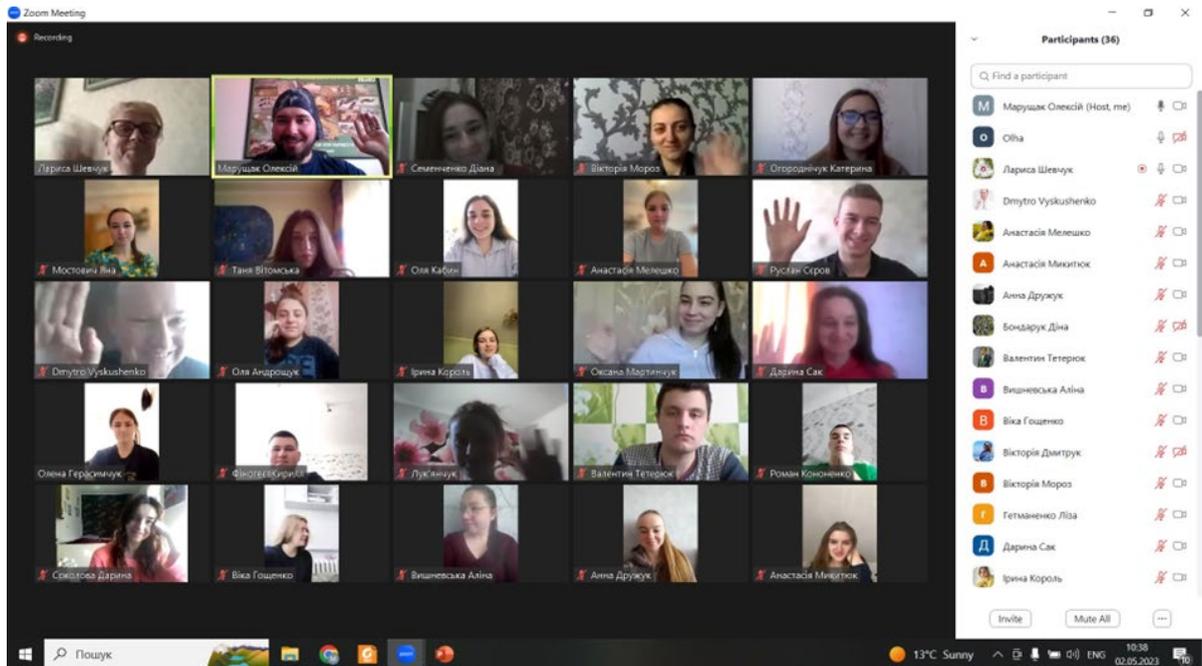
environment. We also had a talk and talked about the effects of war on biodiversity, mentioning the Rufford project as well.

On 23rd November 2022, 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.

On 1st December 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.

On 2nd May 2023, we gave an online webinar in Zoom for students, PhD students and lecturers at Zhytomyr Ivan Franko State University on the topic of importance and practical guidelines about registrations of representatives of biodiversity using GBIF and iNaturalist online platforms. This webinar was a part of the practical training for students from biological specialisation. As a result of this webinar a dataset on local biodiversity of Zhytomyr region is planned to be published on GBIF.





A webinar was held for students and lecturers of Zhytomyr Ivan Franko State University (max amount of participants at the same time was 51 persons).

From May 27-28, 2023, together with the Department of Ecology and Zoology of Taras Shevchenko National University of Kyiv 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. For 3 days, students were taught to collect information on the distribution of rare species and record them on the iNaturalist online platform, using humane methods of ground trapping of terrestrial fauna, light fishing, etc.

A total of 32 students were involved and more than 1200 records of 430 species were made.

<https://www.inaturalist.org/projects/navchalna-praktyka-na-ekostantsii-hlyboki-balyky-2023?tab=observations>



